

# MANUFACTURERS' RECORD

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## Manufacturers' Record.

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BALTIMORE, JUNE 18, 1908.

### SOUTHERN COAL OUTPUT.

In 1907 the South mined 94,799,835 short tons of bituminous coal, nearly 9,000,000 tons more than the total output of coal in the country in 1881, and about 4,250,000 tons more than the whole bituminous output of the country in 1887. The 1907 production by States in comparison with the production 10 years previously is shown in the following table:

States.	1898.	1907.
Alabama.....	6,535,283	14,250,454
Arkansas.....	1,395,479	2,570,438
Georgia.....	244,187	362,401
Kentucky.....	3,587,908	10,753,124
Maryland.....	4,674,884	5,532,628
North Carolina.....	11,496	.....
Tennessee.....	3,022,896	6,810,243
Texas.....	686,734	1,618,069
Virginia.....	1,815,274	4,710,895
West Virginia.....	16,700,959	48,091,583
Total.....	38,785,139	94,799,835
United States.....	219,576,267	490,450,042

In the 10 years the production of bituminous and anthracite coal in the rest of the country increased from 181,191,128 tons to 385,650,207 tons, or by 204,459,079 tons, equal to 112.8 per cent., while in the South the production of bituminous coal increased from 38,785,139 tons to 94,799,835 tons, or by 56,014,696 tons, equal to 144.4 per cent.

### J. STEPHEN JEANS.

Iron and steel interests of the world will regret that Mr. J. Stephen Jeans of London, England, has been compelled by ill-health to retire from the secretaryship of the British Iron Trade Association, which position he most acceptably filled for 30 years. The name of Mr. Jeans is known in honor wherever the iron trade is known, and his standing as an authority in the trade is well

recognized by readers of the MANUFACTURERS' RECORD, to whose columns he has often contributed illuminating articles on various phases of the iron and steel industry. It is hoped that relief from the duties of his position with the British Iron Trade Association will lead to an improvement of his health, so that he may continue his valuable work as editor of the *London Iron and Coal Trades Review* and in allied lines of promotion of the leading industry of the world.

### TWO ILLUSTRATIONS OF PROGRESS IN MARYLAND AND LOUISIANA.

Indicative of the spirit, which is bringing about in the South the utilization of hitherto dormant resources are the facts presented in this issue of the MANUFACTURERS' RECORD concerning the building of the first Portland cement plant in Maryland, and facts of equal interest concerning the great reclamation plans which are now taking shape in Louisiana.

Maryland is a great consumer of Portland cement, having purchased from plants in other States during the last few years millions of barrels; but until the building of this new plant at Hagerstown this State had made no preparation to produce a single barrel of the Portland cement needed for its own requirements. The practical completion of this plant is, therefore, of more than local interest, as it illustrates the potentialities of this State and of the South, needing only energy and capital for development. The projectors of this undertaking very wisely—and their example should be followed in all important business operations—secured the very highest technical skill and talent to be had in finding an ideal location for a plant and in the engineering work on its construction, so that from the time the raw material is put on the cars to be dumped into the works until the finished product comes out at the other end everything is done by automatic machinery, thus reducing the cost of production to the minimum. The building of this plant should be a stimulation to the industrial development of the State. Maryland is rich in natural resources of many kinds, but its own people have too long neglected their opportunities, and the State, which by virtue of natural advantages and of geographical location should be one of the leading centers of manufacturing in the entire country, is far in the rear as compared with other States less favored by nature. Every business man, whether merchant or manufacturer, every banker, every landowner in the State is vitally interested in the development of the industrial potentialities of the State, and every man who wants to see the prosperity of Maryland commensurate with its opportunities should be an active factor in furthering the development of manufacturing interests and in giving the heartiest support to those who, on sound lines, undertake such enterprises

as that of this, the first and only Portland cement plant in Maryland.

Almost at the other extreme of the South there are potentialities of immense value in the overflowed or wet prairie lands of Louisiana which are now being taken up so rapidly by far-seeing capitalists of the West and of other sections. The people of Louisiana generally have not realized their own opportunity in the millions of acres of reclaimable land, and so it has been largely left to men from other sections to see and to seize the opportunity. As pointed out in correspondence from New Orleans in this issue, the leading spirit in this great work, though a resident of New Orleans for some years, went to that city from the West seeking health, and finding not only health, but finding an opportunity for large business operations which the people of the State had overlooked. Other Western men long familiar with the great profit in the reclamation of overflowed lands in Western States have likewise seen the opportunity and are now beginning to make heavy investments in the purchase of land, and are already undertaking great plans for its reclamation. There is a great opportunity in Louisiana and in other States for this work. Investment in such properties is getting down to the fundamental thing for safety, viz., the purchase of lands of such fertility unsurpassed in the world, needing only a fair expenditure for drainage to make them more productive than the valley of the Nile. Louisiana has 7,000,000 acres of such land, so Government estimates state, and when reclaimed it should be worth at least four or five times as much as the cost of purchase and reclamation. The same is true as to much of the overflowed land throughout the South, and Government reports figure the total amount of such available reclaimable land in this section at 50,000,000 acres. Reclaimed and made ready for the market, it ought easily to be worth \$5,000,000,000. The vastness of the prize may well command the attention of the people of the South in seeking to attract capital for the development of such a great resource, now valueless.

### PRACTICAL EDUCATION.

One of the features of the aggressive publicity work which the Cottonseed Crushers' Association of Georgia has been doing for the past year suggests an educational policy which may be adopted with wide application to the advantage of the schools of the South, to say nothing of its industries. The cottonseed crushers of Georgia realize that their products are not appreciated at half their value, and that, therefore, it is necessary to educate the consumer to the point of proper appreciation. With that end in view they offered last February to divide \$100 among children of the public schools writing the best four compositions on the subject of the value and uses of cottonseed products. We have seen the prize-winning compositions, and they reveal an intelligent

comprehension of the subject on the part of the writers, and if circulated by the manufacturers would undoubtedly contribute to the popularity of cottonseed products in the family. Why not make such compositions a part of the curriculum of public schools in the South? The essays need not be confined to one Southern industry, or, indeed, to the strictly industrial field. They could embrace the wide range of the 262 distinct industrial activities in the South covered by the latest census; they could deal with materials and processes as well as products, the beginning being made with studies of local industries, and could range into transportation and commerce in tracing the destinations of the products. Properly organized, such a curriculum would be the means of giving the public school children an unexpected hold upon geography, history, the elements of economics and public affairs generally, which they would find exceedingly useful in later life, and it would tend to develop a public intelligence as to material things which would have an excellent influence upon men in public station.

### STRATEGIC POSITION OF IRON AND STEEL.

Comparatively few people outside of the leaders in the iron and steel interests of the country seem ever to have grasped the strategic position held by that industry. At the moment railroads are suffering from a lack of business. This necessarily reacts on iron and steel and causes a temporary depression. This, however, is only temporary. Even if a lack of freight sufficient to fully employ the transportation facilities of the country should continue to rule for a few months it should be remembered that the country is growing, while the railroads are not expanding. In the near future—and the MANUFACTURERS' RECORD believes that this time is very close at hand—there will again be a great shortage of cars and locomotives and track. With the next burst of industrial activity there will come such a demand upon the railroads as they have never had before. The volume of traffic a year ago, at that time considered abnormal, will then be normal, and the railroads will fall short of the demand upon their facilities to an even greater extent than they did then. Every day in which railroad expansion, through the building of new lines and the betterment of present roads, is delayed will only intensify the conditions which will prevail when the pendulum again swings toward prosperity, and we believe it is already swinging in that direction.

The *Wall Street Journal*, in discussing the probable heavy demand in the future for steel rails, says:

It is estimated that there are in use today in the United States something like 45,000,000 tons of standard section steel rails. The annual productive capacity of the country for standard section steel rails is something like 3,500,000 tons.

To renew the 45,000,000 tons of steel rails would require the steady operation of the

rail mills of the country for the next 12 years.

It would appear from these figures that renewals of rails alone would be sufficient to absorb the country's entire production, based upon 12 years as the average life of a steel rail.

The railroads have been purchasing very sparingly of rails since June of last year. Up to June 15, 1907, the railroads had placed orders for a total of about 1,000,000 tons for delivery in the current year. Buying stopped abruptly in June of last year, and few rails, comparatively, have been ordered since then.

That the railroads of the country will be forced into the market as purchasers of rails before a great while is evident, even if few rails are taken for the laying of new lines.

Including 1908, the rail mills of the country have been maintaining standard section rails at \$28 a ton for the last seven years. It was possible at times to secure as high as \$36 a ton for rails, but manufacturers held steadfastly to \$28. Under such conditions a change in the prices of steel rails at this time would be surprising.

That the railroads have no complaint to make over \$28 rails is evident from the following table, which shows the average yearly prices per ton of Bessemer steel rails over the last 40 years:

Year	Price	Year	Price	Year	Price	Year	Price
1907-8	\$28.00	1897	\$18.75	1887	\$37.08	1877	\$45.58
1906	28.00	1896	28.00	1886	34.52	1876	59.25
1905	28.00	1895	24.33	1885	28.52	1875	68.75
1904	28.00	1894	24.00	1884	30.75	1874	94.28
1903	28.00	1893	28.12	1883	37.75	1873	120.58
1902	28.00	1892	30.00	1882	48.50	1872	111.94
1901	27.33	1891	29.92	1881	61.08	1871	102.52
1900	32.29	1890	31.78	1880	67.52	1870	106.79
1899	28.12	1889	29.25	1879	48.21	1869	132.19
1898	17.62	1888	29.83	1878	42.21	1868	158.46

Prices for steel rails have been more uniform over the last 10 years than in any similar period in history.

It is interesting to note that over the last several years England has been selling its steel rails at prices above the American quotation of \$28 a ton.

An encouraging feature of the steel-rail situation is that the railroads and manufacturers have practically settled their differences in regard to the shape and quality of steel rails.

It is well that these facts should be emphasized. They indicate something of what the railroads will be compelled to buy in the way of rails, even to maintain their present lines; and they also show how inadequate the steel-rail capacity of the country is likely to prove to meet the needs of the next great railroad-building period. Especially will this be keenly felt if the rail mills of the country continue to secure large foreign orders, as it is reported they are now doing. With steel rails selling in this country at \$28 a ton and in England at about \$32 a ton, which was the price last year, we have an indication of the advancing cost of production of iron and steel in foreign countries and the ability of our ironmakers in the expansion of that industry at home to meet the foreign market and greatly increase the foreign shipments of iron and steel products. A student of economic conditions familiar with the iron trade, in a letter to the MANUFACTURERS' RECORD, referring to the fact that large quantities of iron have been exported from the South in the past five years, says:

The time is probably not very distant when both iron and steel may be shipped to advantage in increasing quantities from New Orleans, Mobile, Pensacola, Savannah and other ports to foreign markets. Such exports must, as in the beginning of all export trade, be the surplus production of the mills which can be shipped advantageously to foreign ports at the low freight rates made possible by shipments of cotton and other light cargo; and the maintenance of a steady and consistent export trade, even though at prices somewhat less than those current for the home markets, would give the stability to production that is necessary to enable profitable operation, with continuous and active employment to workmen, that is so essential to the prosperity of the country. By the material already exported it has been proven that the South can participate to no small extent in the export trade of the country. As it is still in the early stages of its development, the possibilities of the future are unlimited.

The demand for rails to take care of

the renewals of existing lines, as shown by the *Wall Street Journal*, must during the next 12 years fully absorb the entire productive capacity of all the rail mills of the country. Add to this the new lines to be built, and economic conditions will inevitably force the building of many thousands of miles of road in the near future, then consider the increasing export trade to foreign countries, and we gain some idea as to the strength of the iron situation and the certainty of its development on even broader lines than we have had in the past. In considering this subject it should be remembered that South America, Africa, Asia and all other lands are beginning to feel the pulsing of new industrial life—a life which must find expression in the building of railroads and the development of manufacturing interests more nearly in keeping with the progress of the United States than in the past. We have been producing more than 40 per cent. of the world's iron trade, though we have only about 5 per cent. of the world's population.

Our activity and our increasing wealth, coupled with modern economic conditions, are beginning to bring about similar development throughout the world. It is not to be imagined that the rest of the world is going to be as backward as it has been, compared with the United States, in the consumption of iron and steel, nor in any other line of material progress. Other nations will show an increasing consumption per capital from year to year, which will gradually advance to something of a parity with the great consumption of iron in the United States and Great Britain and Germany. As this progress continues it will mean an expansion in iron and steel production which will fully tax all the iron and steel-making resources of the world. To the United States as a whole this is a matter of profound interest. To the South especially, which is practically just beginning its iron and steel development, it is of vital interest. It means progress in the South, by the side of which all that we have seen in the past will seem but the work of amateurs. This section will no longer have to struggle to secure the recognition of metallurgical skill and of ample capital for metallurgical development. The foremost steelmakers and the leading capitalists of the world have placed their stamp of approval upon the South's iron-making resources, and the progress of the future will many times exceed what has thus far been wrought in Southern upbuilding.

#### NEW YORK'S STREET-RAILWAY MUDDLE.

Street-railway conditions in New York city present a sufficient example of the unwisdom of much government control of transportation companies. Until the State went about regulating railroads local transportation facilities on Manhattan Island were in a fairly satisfactory state. As in all cities of magnitude, there was the usual crush on the cars during the busy hours, particularly in the evening, but the trend of effort by the companies was to improve conditions, and, in fact, matters were very much benefited when the subway was put in use. Since the Public Service Commission broke up the monopoly of the Interborough-Metropolitan Company and threw the surface lines upon their own resources receivership and trouble have resulted. It appears that the profits derived from operation of the subway and the elevated lines had been used by the controlling company (the Interborough-Metropol-

itan) to make up the deficit of the surface lines, so that when the combination was abolished the latter had to seek protection in court.

This receivership resulted in other receiverships for subordinate roads which were leased by the Metropolitan Street Railway system. Thus the Third Avenue lines were cut off by the receivers because the lease held by the Metropolitan compelled a higher rental than the property could earn. Then the Third Avenue line had to get a separate receivership, and this brought about the cancellation of unprofitable minor leases by it. The cutting off of the Third Avenue road also caused the abandonment of the transfer privileges with the Metropolitan lines at sundry points, and it is said plans are contemplated to do away with other free transfers, while there is talk of abolishing the three-cent exchange tickets between the elevated lines and the Third Avenue road. Another thing that has happened was the abolition of service on the Fulton street cross-town line, an old horse-car road. It is anticipated that service will also have to be cut off on other roads because they are unprofitable for themselves and cannot stand alone.

There is a grim humor in this distressing muddle of street-railway facilities, for, theoretically at least, the regulation of the lines by the State was designed to benefit the public as well as to prevent what the advocates of regulation called overcapitalization, yet those who have suffered most from the work of the Public Service Commission are the general public and the security-holders of the companies. As is indicated by the preceding outline of the situation, travel in New York city is by no means as efficient or convenient, and some of the properties are being cared for by the courts solely with regard to saving the mortgages upon them. Truly the people will regret the day that the State authorities ever set about such plans to benefit them and improve the transportation service, for they have progressed only like a crab—backwards.

Notwithstanding the monopoly which it held, the Interborough-Metropolitan Company, which was formed two years ago, had found itself able to carry the unprofitable lines on the strength of those that were successful and to maintain service on all. The error of the authorities seems to have been their determination to abolish the monopoly instead of to regulate it. The experience of Baltimore with a street-railway monopoly during the last nine years affords evidence of certain advantages in such a combination. By the transfer system prevailing in the Maryland metropolis it is possible for a passenger to travel from one point to another practically anywhere within the city limits for a single fare of five cents. Thus far the monopoly has worked well, although it is regulated as to fare by a State law, and it is furthermore under legal restriction more or less at the hands of the City Council. Considering the New York situation in the light of Baltimore's experience, it would seem that the islanders of Manhattan had a good thing, but they didn't know it. It will require considerable effort for them to get it back and to make up for the delay that has been placed in the way of further extension of street-railway facilities which the Interborough-Metropolitan Company was working toward when the agitators got busy with it.

Communities which are likely to be afflicted by ill-advised government regulation of their transportation facilities

will do well if they heed the warning which New York's experience presents, bearing in mind that there are certain things which are natural monopolies, and that the effort of the people should be toward wisely dealing with them, and not toward following the lead of some political agitator, who is more likely to be seeking notoriety for himself than advantage for the public. Not that all local railways in any city should necessarily be controlled by one company, but only if they be so held it does not necessarily follow that such a condition is to the disadvantage of the people.

#### PREVENTION OF FIRE.

With a full realization of the adequacy of provision for recovery, through insurance, against financial loss by fire, Mr. Powell Evans, president of the Merchant & Evans Company of Philadelphia, is leading in a propaganda to save the country from the actual material loss in the destruction of property by fire. He is circulating at his own expense copies of his address before the National Association of Manufacturers in which he looked to a time when an American fire-prevention association may come into being upon a national basis, with State departments and municipal bureaus, and comprising in its membership in each municipality every business house and every individual desirous of reducing destruction of property and loss of business by fire. He says:

This membership, informed and animated with this object, can use laws and ordinances in existence in every city to better present conditions, and if such do not now exist, can exert their combined influence to demand the creation of the necessary authority. Every man and woman in the country should be an ally of this movement, and should become posted about the facts in the case, and should have, under law, authority to report any dangerous or illegal conditions noted in any building anywhere and at any time to the proper authorities; be able to require prompt, effective and reasonable correction, just as agents and members of the Society for Prevention of Cruelty to Animals can now inquire into and resist on the spot abuses of that nature. The constant fear of fire is in every breast, as witness the protection of a policy on most property and the incorporation of fire insurance in most deeds of trust, and its usual requirement as a basis for mercantile credit. The final thought of the average householder throughout the land before retiring to rest is to look at the fire or furnace in his house. The fact that this danger is so ever present everywhere tends in itself to limit opposition to it, because the fear is a habit, and in a measure subconscious; but the moral support of the country, which is the basis of every great movement, could, beyond question to my mind, be rapidly and effectively organized to oppose present fire waste. The frequent, irregular and unrelated newspaper comment on fire losses shows the disposition of the daily press in the matter, and its aid could doubtless be safely counted upon to regularly disseminate more systematized information when the need of a thorough educational campaign on the subject is properly brought to their attention.

Suggestive of the wisdom of such a movement are estimates by Mr. Evans that, though not all of the property burned in 1907, representing a loss of \$215,671,250, was insured, yet the cash premiums received by about 650 stock and mutual fire insurance companies during the year show an actual cost to the people of the United States of \$1.40 for every \$1 of fire loss, and that the average annual fire loss in the 10-year period ended with 1906 was equal to 36 per cent. of the total annual receipts of the United States Government, 37 per cent. of the net earnings of railroads in the United States, 122 per cent. of dividends paid by railroads, 180 per cent. of the United States gold produc-

tion and 648 per cent. of the interest on the national debt.

In spite of a steady growth in the use of fire-resisting materials in building, in the installation of automatic sprinklers and other devices for limiting the danger of a fire's spreading and in improvement of fire-fighting apparatus, the destruction by fire becomes greater and greater, and emphasizes the necessity for greater vigilance against the starting of the fire. Whether or not there is necessity for the organization of an association to that end in this day of overorganization, with its obvious drawbacks, it cannot be doubted that the demand for vigilance emphasized by Mr. Evans is a pressing one, and his address deserves a serious consideration of all mediums for the cultivation of healthy public opinion and sound individual action.

#### OUR NEW ORLEANS BRANCH.

The MANUFACTURERS' RECORD has been gratified at the receipt of many voluntary letters from leading business concerns in New Orleans expressing their appreciation of the fact that we have established a branch office in that city, with Mr. Albert Phenix in charge. Indicative of the sentiments expressed by many are the following extracts from a few of the letters received.

Peter Hellwege & Co., brokers, writing under date of June 1, say:

Enclosed please find \$4 as subscription to the MANUFACTURERS' RECORD for one year. We are very much pleased to note that you have opened an office in New Orleans, and feel confident that this section of the country will be greatly benefited by having such a world-wide journal chronicle its wonderfully valuable resources, its developments and its possibilities for development.

W. B. Thompson, president New Orleans Cotton Exchange, says:

The move has the best wishes of our members, and they trust it may be successful in every way. The efforts of the MANUFACTURERS' RECORD in behalf of our Southern country are highly appreciated.

The Southern Cotton Oil Co., under date June 1, writes:

It is with great pleasure that we learn that you have established a branch office in this city, as we feel sure that you will find a wide field in our section for the expansion of the good work you are doing for the South. As a slight expression of our appreciation of your coming among us, we will request that you enter our subscription to your paper.

The Standard Oil Co., through P. S. Morris, the special agent of the company at New Orleans, writes under date of June 2:

I feel that the people of New Orleans have just cause for congratulations, due to the fact that you have decided to establish a branch office at New Orleans. The articles appearing in the MANUFACTURERS' RECORD are always considered of value, and as this section of the country is developing wonderfully, I believe the MANUFACTURERS' RECORD, as well as the people of this locality, will be benefited very largely.

Mente & Co., burlaps and bags, write:

You may rest assured that we will give you our heartiest co-operation in your efforts to develop our Southern industries.

The Louisiana Export Lumber & Box Co. writes:

We are glad to note you are opening a New Orleans branch. We wish you all the success you anticipate. We are in sympathy with your paper.

The General Fire Extinguisher Co. writes, through S. O. Thorne, plant manager at New Orleans:

Speaking for ourselves, we shall certainly be pleased to co-operate with you in every possible way, as we recognize the value of your periodical.

E. B. Harrall, coffee importer:

We deem it a cheerful prophecy of the future greatness of New Orleans to have you open a branch in this city.

#### PUNCTUALITY IN RAILROAD SERVICE.

There is probably no other country in the world where travelers are so critical of railroad schedules and are so anxious that trains shall be on time as they are in the United States. If a train is five minutes late, the average American is likely to fret about it if he proposes to travel thereon or if he be waiting for somebody to arrive. If it is 10 minutes late, he begins to growl, and if it is 15 minutes behind time he wants to raise a row with someone and "cuss" the railroad company into the bargain. The result of this impatience to be off upon one's journey or to have another's journey completed is that foreigners traveling in the United States remark upon the very general fidelity of railroad operatives to their schedules, and it is a pity that it cannot be said that this living up to time tables prevails in all sections of our country.

Nevertheless, the best trains which our leading railroads run preserve such high standards of accuracy as to deserve remark. One of the principal transportation companies of our country, which has often been held up as a model for others, makes the notable announcement that its 18-hour express between New York and Chicago for a period of 53 days was exactly on time with the exception of three trips in each direction; that is, 106 trains were run and only six of them failed to arrive exactly on the minute. Those which were late were behind time only 2, 4, 5, 10, 13 and 39 minutes, respectively. It will thus be seen that there was really only one train which was very much behind time, the lateness of the others being quite small considering the long distance run, 908 miles.

Analysis of these figures show that 94.35 per cent. of the total number of trains were exactly on time at their destinations. Considering also those which were not more than five minutes late, the trains about on time amounted to 97.17 per cent. of the total, and furthermore, leaving out of consideration only the train which was 39 minutes late, the serviceable standard was 99.06 per cent. This is indeed a very notable record for trains operated over a long distance and through some large cities.

Comparatively few persons appreciate the difficulties of operating high-speed trains over crowded railroads or the skill which has to be exercised to overcome the difficulties surrounding the task. To get these trains through on time means that they must be assured of clear track all along the line when the time arrives for their passage at each and every point on the route. Hundreds of other trains are also using the tracks, and they, too, must maintain their schedules, subject to many unforeseen difficulties which may prevent them, or which may incline to prevent them, from making regular speed. Yet they are kept out of the way of the flyers and still perform their journeys with a degree of precision and regularity nearly, if not quite, equal to the special trains which are the particular subjects of comment here. Every experienced traveler knows that with our best railroads it is the usual thing for trains to arrive on time at important terminals.

The tendency of railroad practice is toward perfect fidelity to schedules, and the introduction of electric inter-urban railways as factors in transportation is a stimulus to all lines in their efforts to secure precision in operating, because the trolley routes generally run

cars at such frequent intervals that none can be permitted to lag upon the road. Thus competitive lines are compelled to maintain their schedules to hold their share of the traffic. We may expect to witness a general advancement with respect to punctuality in train service as the years roll by.

#### CLEMSON COLLEGE INFLUENCE.

From a preliminary and imperfect list of the 1896-1907 alumni of Clemson College, S. C., published in a recently-issued catalogue of that progressive and thriving institution, one may obtain a fair estimate of the notable influence which is being exerted by graduates of the agricultural, civil engineering, mechanical-electrical and textile courses of the college. The list contains 463 names. Six of the alumni included in the list have died, and the addresses and occupations of six others are not known. Of the 451 remaining, 216 are in South Carolina, as might be expected, 42 in New York, 26 in Georgia, 25 in Pennsylvania, 21 in North Carolina, 19 in the District of Columbia, 16 in Alabama, 14 in Virginia, 12 in Massachusetts, 9 in Florida, 4 each in Illinois, Maryland, Missouri, Tennessee and West Virginia, 3 each in Texas, the United States Revenue Cutter Service, Mexico, Panama and the Philippines, 2 each in Arkansas, Louisiana, Mississippi and New Jersey, and 1 each in California, Colorado, Connecticut, Kansas, Ohio, Oregon, Rhode Island and Utah—a total of 235 outside South Carolina.

Among the alumni is a sprinkling of physicians, preachers, lawyers, dentists, bookkeepers, salesmen, etc., and a number of teachers, and some are pursuing advanced studies elsewhere, but the great number are found in farming or in other pursuits bearing directly upon the productive energies of the country. They are found in cotton mills, in machine shops, in engineering plants, in oil mills, in fertilizer plants, in power companies, in the railways, in mining, in lumbering and in the technical branches of the United States Government at home and abroad. There are draftsmen, engineers of various kinds, contractors, chemists, electricians, managers of farms, mill overseers, etc., and it is interesting to note the number of South Carolina graduates who are connected with such undertakings as the General Electric Co. of New York, the Westinghouse Electric & Manufacturing Co. of Pennsylvania, the Southern Power Co. of North Carolina, the Newport News Shipbuilding Co. of Virginia, the Erie Engine Works of Pennsylvania, the Virginia-Carolina Chemical Co. of Virginia, the Crompton & Knowles Loom Works of Massachusetts, the Draper Loom Co. of Massachusetts and the Pennsylvania Railway Co. in the Hudson river tunnel construction. One, a lieutenant in the United States Army, is instructor in mechanics at West Point; one is civil engineer in the service of the Government in the Philippines; one is inspector at the United States navy-yard at Charleston; there are assistant engineers in the Revenue Cutter Service, which is steadily growing as an important factor; one is superintendent of a city light and power company; one is superintendent of a street-railway company, and one is the owner of iron works. Clemson College alumni exhibit proves the great value of Clemson College to South Carolina and to the whole country.

As 687 of the 690 students at the college during the session just closing were from South Carolina, it is fair to believe that the great majority of the alumni are natives of that State. Granting the great work being done for the State by the college under existing conditions, and even recognizing some indirect advantage to

South Carolina in having nearly 250 of its trained sons scattered through the country and into distant portions of the earth, one must, nevertheless, regret that all of the young men trained at Clemson could not have found irresistible reasons for remaining at home and sharing in the benefits of their own participation in the full development of their native State. That development is yet to come, and with its coming opportunities should be so great that they should draw back home all of the young Carolinians now active elsewhere in telling work of progress.

#### PAVING THE ROAD IN HADES.

[New Orleans Picayune.]

"I don't want to be unduly boastful about the part the MANUFACTURERS' RECORD has played in the development of the South," said Albert Phenix yesterday at the St. Charles, "but ever since I first came to New Orleans, 12 years ago, and especially since my location here recently in charge of the New Orleans branch office of my paper, I have been much impressed with the voluntary and cordial expressions of good-will for our publication—a good-will which seems to be shared by everybody—and by the universal recognition which is accorded the MANUFACTURERS' RECORD as an important factor in the changes that have occurred during the past 25 years. Sometimes I am inclined to think it was intended not altogether as a joke when John Skelton Williams, the banker and railroad president, of Richmond, declared that the influence and suggestions of the MANUFACTURERS' RECORD could make a paradise of even Tophet.

"I don't believe the Williams story ever got into print," continued Mr. Phenix, "but as it was much enjoyed by the crowd he first told it to, among whom was Mr. Edmonds, the editor of the MANUFACTURERS' RECORD, and was, as I regard it, a pretty neat story to be made up on the spur of the moment, even by Williams himself, who is a marvelously fertile and prolific joker, I will give it to you as near as I can recollect it. The story was told by Williams in this city at a small gathering of bankers during the National Bankers' Convention in 1902. In introducing Mr. Edmonds, Mr. Williams said:

"When an admirer of Voltaire died and went to heaven the first man he asked to see was the great French philosopher. 'Not here,' St. Peter said, after looking through the list. 'You'll evidently have to go to Hades to see him.' 'How can I do that? What about the impassable gulf?' the newcomer asked, shocked and grieved that the man he had so much admired had gone to the Nether world, but still desirous of seeing him, if it were in his power. 'Oh, no trouble at all,' St. Peter replied. 'A cantilever bridge now spans the gulf, and the two worlds are connected by an electric trolley line.'

"Voltaire's admirer took the trolley car with a ticket for Hades. After a pleasant ride he reached a scene of marvelous beauty. There was luxurious foliage of many trees; there were greenwards and budding flowers; there were murmurs of falling waters and the music of singing birds.

"'All out for Hell!' the conductor bluntly shouted.

"The dazed visitor had to be reassured before he could believe that this indeed was Tophet; but he finally left the car and made inquiry for Voltaire. He was directed to a magnificent mansion on a slightly hill, and in response to his knock on the door Voltaire himself came to meet and welcome him.

"Greetings concluded, the visitor expressed his amazement at the charm of the place, and declared there surely must be a mistake as to this being Hades.

"'No,' said Voltaire, 'your informa-

tion is quite correct. This is Hades, and when I came here it was just as bad as your most vivid imagination ever pictured. The land was filled with the fumes of sulphur and the smoke of everlasting fires; but one day, some 25 years ago, a fellow from America managed to bring in unobserved a copy of a new industrial newspaper. Some of us began to study it and to follow its teachings as to how to upbuild a country and to make beautiful and prosperous a land of desolation. We followed its suggestions, and learned, among other things from its columns, how to bore artesian wells. In this way we put out the fires and still have water enough left to irrigate the land; and the green grass, the budding flowers and the groves of trees which delight your eye are all the result of studying the MANUFACTURERS' RECORD of Baltimore."

#### MEMPHIS.

In seven years the work of the Industrial League of Memphis, Tenn., has resulted in locating in that city 91 industries, employing 12,000 persons and representing an aggregate capital of \$22,000,000. Characteristic of the work of the league is the Memphis Yearbook, giving a mass of information about the conditions of the city, its industries, its cotton, cottonseed, lumber and grain markets, and its importance as a business center—generally. Col. I. F. Peters, industrial commissioner of the league, shows that in seven years the population of Memphis has increased from 102,220 to 200,000, its annual clearing-house receipts from \$154,482,935 to \$248,878,040 and its postoffice receipts from \$247,292 to \$539,252. Real-estate transfers amounted to \$4,259,290 in 1902 and to \$9,129,510 in 1907, and the cost of building improvement in city and suburbs to \$2,253,000 in 1902 and \$7,432,071 in 1907. Memphis has 27 banks and trust companies, with capital of \$8,000,000 and \$30,000,000 of deposits, more than 100 miles of electric street-car service and 235 miles of sewers.

#### THE COTTON MOVEMENT.

In his report for June 12, 1908, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 286 days of the present season was 10,937,840 bales, a decrease under the same period last year of 2,163,897 bales. The exports were 7,028,919 bales, a decrease of 1,089,229 bales. The takings were, by Northern spinners, 1,675,387 bales, a decrease of 771,968 bales; by Southern spinners 2,036,474 bales, a decrease of 141,202 bales.

The Texas City Steamship Co. is reported formed in New York to operate a line between New York city and Texas City, near Galveston, Texas. Steamers will stop at Brunswick, Ga., each way. The company, it is said, will have \$1,000,000 capital and will secure a New Jersey charter. It is also said that New York, Boston and Texas capital is interested. Connection will be made with the Atlanta, Birmingham & Atlantic Railway at Brunswick, Ga., and the steamers will also use the new terminals built at Texas City by A. D. Wolvin of Duluth, Minn. The service is to consist of one steamer a week each way, which will be increased as business demands.

The Capital Taxicab Co. has been incorporated at Alexandria, Va., to conduct business in Washington, D. C.; capital \$100,000 to \$300,000. The business will consist of the transportation and transfer of passengers and baggage. The officers are H. A. Porter, president; G. H. Tolman, vice-president; W. F. Thomas, secretary and treasurer, all of Washington, D. C.

#### THE BIRMINGHAM DISTRICT.

##### But Little Change in the Iron Market During the Week.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., June 15.

The iron market of the past week, compared with that of the preceding week, shows but little if any change. There was a very fair demand, but less disposition was manifested on the part of the sellers to do business than on the part of the buyers. Yet there was enough of getting together to conclude a respectable volume of business. There was a very good inquiry for the fourth quarter delivery, but it found sellers in but poor humor for selling for that delivery. A comparative few had their orders accepted at and around \$12.50, basis of No. 2 foundry. There were a few orders accepted which are credited as being entered at \$13. While the sellers are neither affirming nor contradicting the report, it is accepted that some sales were made on that basis. Prices were irregular, and buyers did not like the fact that all the furnaces were not sellers. It forced some of them to want some iron while they could get it. One of the leading interests said to your correspondent: "We have no regular price, and you will hit the situation as to prices by quoting them all the way from \$12 to \$13. Our minimum is \$12, and we range up to \$12.50, according to terms of sale, amount wanted and the delivery. Another leading interest reports that its base price has been advanced to \$12.50, and it is not pushing sales. A third interest voices the same conditions. Saturday morning your correspondent was in an office when a telephone offer was made of \$12 for 2000 tons nearby delivery, half each of No. 2 foundry and No. 2 soft. It was declined because of sold-up condition of stock. So while a buyer might stumble on what he desired, he runs an equal chance to be disappointed. The lower grades are in great scarcity, and those who hold them in any quantity are making them go around as far as they can. One interest reports sales in excess of its current make for the week, with more or less business turned down it did not desire. One large interest reports sales during the week aggregating 2500 tons on a basis of \$12.50. There were a few round lots sold somewhere within the limits given, but the majority of the sellers preferred the orders for medium and small size lots as the most attractive to them. They brought a shade better price, and did not require such drafts on the stockpiles. They had the preference when in competition with the round-lot contingent. There was some inquiry for 1900 delivery, but if there were any transactions concluded they were not made public. As a rule, that business is declined.

In scrap iron there is no change to be made in quotations. But the market retains the firmness noted in last letter, and is hardening. Quotations are as follows:

Old iron rails, \$14.50.  
Old iron axles, \$14.50.  
No. 1 country wrought, \$12.  
No. 2 country wrought, \$11.50.  
No. 1 railroad wrought, \$13.50.  
No. 2 railroad wrought, \$11.50.  
Old car wheels, \$12.50.  
No. 1 malleable, \$11.50.  
Machine castings, \$10 to \$10.50.  
Wrought pipes and flues, \$10.50.  
No. 1 steel, \$10.50 to \$11.  
Stove plate, \$9.50.  
Cast borings, \$6.50.

There is some gossip concerning the resumption of some furnaces, but there is nothing yet done concerning that of a definite nature. In well-informed circles there is some gossip of negotiations pending for the purchase of two or more of the

independent furnaces in this district by allied interests of a syndicate in the British iron and steel trade representing a capital of \$300,000,000. But the negotiations, if in progress, have been very quietly conducted, and nothing that is definite has yet been unearthed. The matter is mentioned because it is a subject of discussion in usually well-informed circles.

In cast-iron pipe there is a good demand, but just at this time it is mostly for moderate-size orders. It is noted that our pipe plants are reaching out after business as fast as it comes in sight. But a short time ago the Dimmick Works took a contract for Porto Rico, and now have been awarded a contract for pipe to go to the Isthmus of Panama. It was a small contract, only 400 tons of four, six and eight-inch, but it illustrates the trend of the trade. Before the month closes it is anticipated that some contracts of good volume will be let that are now held back for successful financing. No important contracts of moment are in sight at this writing. But all the pipe works are running full force, and a continuous operation is anticipated. As for quotations, it is hard to give them exact. To say that they run from \$19 to \$21.50 would give the limit within which any order could be filled. The conditions of the order would fix the definite price.

Practically the steel mill has resumed operations, and its example will be followed by other interests. On the ending of the Confederate Reunion, at a meeting of the Commercial Club, it was determined to own a building of its own. The same enthusiasm was thrown into it that characterized the management of the reunion, and three-fourths of the amount needed was subscribed in part of one day. There is not a shadow of a doubt concerning the remainder of the amount necessary. The site is the property at the corner of First avenue and 19th street, on which at present is a six-story building. The property is known as the Chalfoux corner. The new building will be seven stories high, and the lot and building will cost \$230,000. Bonds for \$150,000 have been provided for. An issue of preferred stock has been provided bearing 7 per cent., which the members of the club will take. The top floor will be occupied by the club, and the other six stories will be rented for office use. The supervision of the erection of the building will be in the hands of the Empire Construction Co. The Commercial Club will change its name to that of the Birmingham Chamber of Commerce. The progress it has made in the last few months has imparted confidence to the organization, and it promises from now on to be more and more an influential factor in the progress of the city. The way in which the crowds were managed the past week showed conclusively that the city had learned to do things and hereafter could point with pride to this event.

We can say, in concluding this letter, that there is every prospect that in a short time we will announce the erection of another skyscraper. Visitors are marveling at our growth, and the future of the district is on every tongue. J. M. K.

#### Kentucky Oil Fields.

[Special Cor. Manufacturers' Record.]  
Barboursville, Ky., June 15.

New capital has entered the Kentucky oil fields during the past week, and new developments will occur in several sections. The past few weeks have witnessed an expansion of the drilling forces, and production of oil is increasing with the increased activity in field work.

The biggest deal in the oil fields in many months was the purchase of the holdings of the J. H. Morgan Oil Co. of Lex-

ington by Dinsmore Bros. of Pittsburg. It is given out that the purchase price was \$100,000. The territory included in the deal contains producing and undeveloped leases, and is situated in Wolfe county, the center of the oil development industry in upper Kentucky. While the old company drilled a large number of wells and had a good settled production, the new owners will augment the drilling force and will try out drilling in new directions.

Another deal of importance the past week was the purchase of a partly-developed acreage in Wayne county by the Cumberland Natural Gas Co. of Barboursville. The lease contains a prolific gas development. The Cumberland Natural Gas Co. has started the installation of a natural-gas system at Monticello, Ky., using the product of the wells already drilled. New drilling will be undertaken.

Activity is increasing in the larger fields reached by the Standard Oil Co.'s pipe lines. Probably a dozen new wells have been started in Wayne county during the past week. Some good strikes have lately been made, and the success attending drilling in new sections is stimulating work. Wayne county is the largest oil-producing field of Kentucky. In other fields inducements are held out for much new work by the success attending new developments. In some of the producing divisions, however, there is still a dearth of activity, and it will take better prices on crude oil to bring out the drilling force.

Oil prices have been firm for the past six months, the two purchasing companies quoting \$1.03 and \$1, respectively, on the better grade. The inferior grade commands 75 cents per barrel.

W. S. HUDSON.

#### Shreveport.

Mr. T. H. Thurmond, auditor and secretary of Shreveport, La., has compiled statistics showing that during the past year \$235,000 have been spent in the city upon municipal buildings of different kinds and \$615,000 upon other buildings. The city has 23 miles of sewers and 23 miles of paved streets, and is preparing to pave many miles more. Its population is 32,000, and the assessed value of property is \$11,635,057.

#### Wants Agents for Portland Cement.

In accordance with its intention to extend its trade throughout the South, the Pennsylvania Cement Co. of 26 Cortlandt street, New York, is now arranging for representation in important Southern cities and towns. Correspondence is desired, and should be addressed to the branch offices in the Builders' Exchange, Charles and Lexington streets, Baltimore, Md.

#### For a \$500,000 Courthouse.

Contractors are invited to note that proposals are invited for the construction of the \$500,000 courthouse which Harris county, Texas, has been arranging for. The building will be located at Houston, and the architects are Messrs. Lang & Witchel of Dallas, Texas. A. E. Amerman, county judge, Houston, can be addressed.

#### Wants Southern Agents.

The MANUFACTURERS' RECORD is advised that Messrs. Yeomans Bros., manufacturers of a general line of pumping machinery, are prepared to correspond relative to appointing agents in various Southern cities. Their general offices are at 1141 Monadnock Block, Chicago, Ill.

The assessed value of real estate in Norfolk, Va., this year is \$36,172,489, an increase over last year of \$1,305,700, and this sum does not include property owned by transportation interests.

## MARYLAND'S FIRST PORTLAND CEMENT PLANT.

[Special Correspondence Manufacturers' Record.]

Hagerstown, Md., June 15.

Great interest and significant importance are attached to the fact that the first high-grade Portland cement plant to be established in Maryland is now rapidly approaching completion, and will be in active operation by the early part of July. The plant is that of the Maryland Portland Cement Co., located at Security, two miles east of here, 84 miles west of Baltimore and 80 miles north of Washington, and directly on the main line of the Western Maryland Railroad, with connections at this point with the Baltimore & Ohio, the Norfolk & Western and the Cumberland Valley railroads, all of which give a splendid outlet for the finished product. The plant has been constructed along the latest improved ideas in the manufacture of Portland cement, and deposits of necessary raw materials are in abundance for an almost indefinite period in close proximity to it.

It was not until several years ago that any active steps were taken looking to the organization of a company to take advantage of the raw material deposits in Maryland for the manufacture of a high-grade Portland cement. At that time several

drier building, 29x50 feet; coal mill, 30x35 feet, and laboratory, 20x50 feet. These structures, with the exception of the crusher and stone-drier buildings, are of substantial steel-frame construction, covered with corrugated iron, so that this is practically a fireproof plant. Moreover, the arrangement of the building has been so planned that future extensions and enlargement can be easily made at any time. The structural steel work for all of the building was furnished by Lauer & Harper, Baltimore, Md.

A good idea of the general features of the equipment and the operation of the plant can be had from the following description of the course of the material from its raw state in the quarry to the finished product in the car:

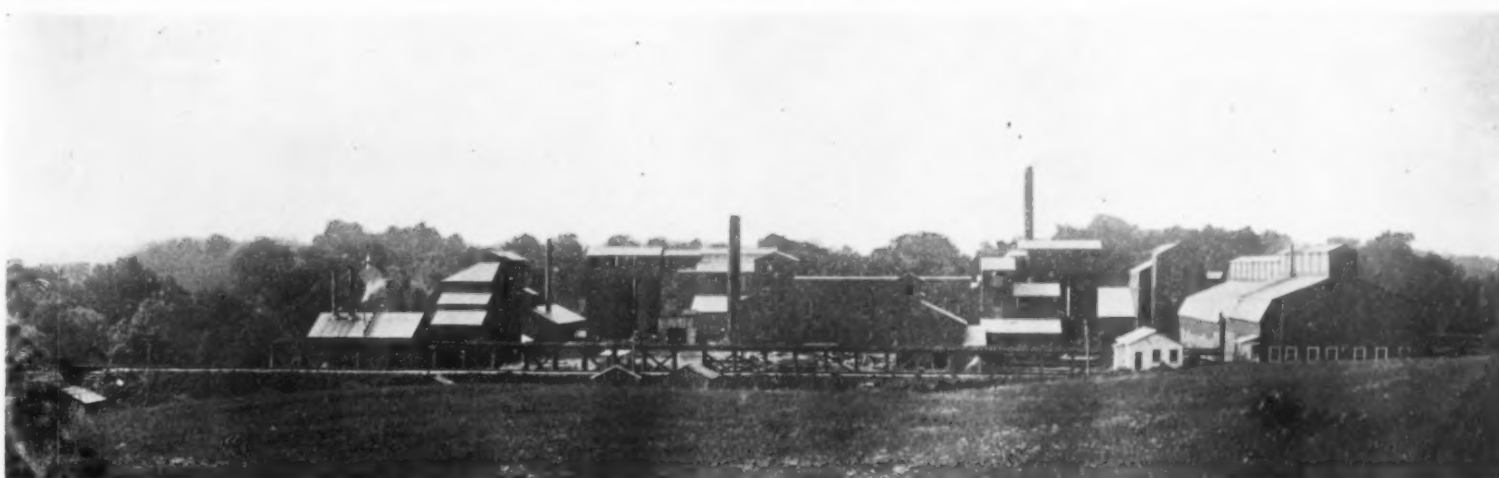
From the limestone quarry the rock is brought along tramways to the scales in cars of two tons capacity, made by the Wm. J. Oliver Manufacturing Co., Knoxville, Tenn. At the scales the rock is weighed and the proper proportion of shale added, the latter being drawn from a bin directly over the cars. The car is then pulled up an inclined trestle to the crusher by means of a wire cable operated by a

carried to five steel storage tanks, under each of which is a Lehigh Fuller mill made by the Lehigh Car Wheel & Axle Co., Catasauqua, Pa., and supplying the third and final stages of grinding of the raw material. Running at the base of these mills, and receiving the discharge therefrom, is a screw conveyor, which carries the now thoroughly pulverized raw material to the kiln building, where it is elevated into two large steel tanks above the kilns, and which serve for storage. These tanks have a capacity of 285 barrels each. From them the material is fed into the kilns, which are two in number, and of the rotary type, 7 feet in diameter and 100 feet long, and made by the Vulcan Iron Works, Wilkes-Barre, Pa., and lined with fire-brick furnished by the Harbison-Walker Refractories Co., Pittsburg, Pa. Pulverized coal is used for fuel, being blown in the kilns by an air blast from a gas blower made by the B. F. Sturtevant Company of Boston, Mass. The coal is pulverized and prepared for the kilns in the coal-drier and coal-mill buildings. The coal is conveyed from a trestle to the coal-drier building, where it passes through a 30-inch by 30-foot drier supplied by F. D. Cummer & Son, Cleveland, Ohio, from which it goes through a set of 18x30-inch Buchanan rolls, furnished by the Geo. V. Cresson Company, Philadelphia. It then passes

rels, and they are filled by a conveyor running the full length of the building. Just below the floor level and running along the front of the bins is a screw conveyor, which takes the cement from any bin desired and carries it to the far end of the building, where the packing-room is located. At this point the cement is received by an elevator, which carries the cement to four packing bins, from which the cement is packed into bags by automatic bag-packing machines, supplied by the Richardson Scale Co., New York city. The railroad side-track runs through the packing-house, and the bags are loaded on the cars from the packing floor, which is on a level with the floor of the cars.

From the above description it will be observed as a noteworthy fact that the material throughout its entire course is independent of manual labor, the various processes being entirely automatic. No expense has been spared to make this possible, as it is conducive largely to uniformity of product as well as to economy of operation.

The elevating and conveying system was furnished by H. W. Caldwell & Son Company, Chicago, Ill.; the power-transmission machinery by Geo. V. Cresson Company, Philadelphia, Pa., and the belting by Bonner & Barnewall, New York city. The main boiler-house is equipped with



GENERAL VIEW OF MARYLAND PORTLAND CEMENT CO.'S PLANT AT SECURITY, MD.

well-known men, realizing the splendid opportunities awaiting the location of such an enterprise, engaged Mr. Charles Catlett of Staunton, Va., and Dr. John Sharsall Grasty of Baltimore, two geological experts, to study the situation and report on its possibilities. Exhaustive and careful examinations and reports were made on every phase of the proposition, with the result that it was decided that the raw materials found in this section were of such value and in such abundance as to justify the establishment of a plant, and accordingly the Maryland Portland Cement Co. was organized with a capital stock of \$850,000. Right here it is pertinent to state that this company has no connection or relationship in any way with the old Maryland Cement Co., which some years ago manufactured a slag cement at Sparrows Point.

The plant was designed, erected and equipped under the direction of Major F. H. Lewis, consulting engineer, Leeds, Ala., who has had wide experience in the preparation of plans for such plants. The many different buildings comprising the plant, together with their dimensions, include the power-house, 90x110 feet; main boiler-house, 38x75 feet; auxiliary power plant, 40x49 feet; crusher building, 24x50 feet; stone-drier building, 20x50 feet; rock mill, 30x80 feet, with an extension 37x39 feet; kiln building, 36x140 feet; clinker mill, 69x81 feet; stockhouse, 60x260 feet; coal-

hoist made by the Stephens-Adamson Company, Aurora, Ill. When the car reaches the crusher building it automatically dumps into a No. 7½ McCully crusher furnished by the Power & Mining Machinery Co., Cudahy, Wis., from which it discharges into a Stephens-Adamson elevator of the endless-bucket type, by which it is carried to a 48-inch by 12-foot Gates revolving screen made by the Allis-Chalmers Company, Milwaukee, Wis. From the screen the material passes into two large steel storage tanks, 30 feet high and 15 feet in diameter, having a capacity of about 800 barrels each. At the bottom of the tanks the material is automatically fed onto a belt conveyor, which takes it to the stone-drier building, from whence it is elevated into a 60-inch by 50-foot rotary drier furnished by W. F. Mosser & Son, Allentown, Pa. Upon passing through the drier the material is discharged upon a belt conveyor, by which it is carried to an elevator, which, in turn, takes it to the top of two 35-foot storage tanks similar to those already mentioned.

From these tanks a belt conveyor carries the material to the rock-mill building, where it is elevated to steel storage bins, and from these enters a Krupp ball mill and a Kent mill furnished by Thomas Prosser & Son and the Kent Mill Co., respectively, of New York city. These mills represent the second stage in the grinding of the raw material. The material is then

for its final grinding into a Lehigh Fuller mill, from whence it is carried to storage tanks in the kiln building. After passing through the kilns the hot clinker is received into two inclined open bucket elevators, which discharge into two clinker coolers 8 feet in diameter by 32 feet high, made by W. F. Mosser & Son. The air blast for the coolers is furnished by a Sturtevant 70-inch steel-plate fan. From the bottom of these coolers the material is carried by a suitable system of elevators and conveyors to the top of two steel storage tanks 15 feet in diameter and 35 feet high, from which a belt conveyor carries the material to the clinker mill, where it discharges into two Mosser rotary crushers, in which the clinker receives its preliminary grinding. From these the material is elevated to two steel storage tanks placed directly above two Linhard kominuters furnished by F. L. Smidth & Co., New York city, this being the second stage in the reduction of the clinker. From the kominuters the material is conveyed into two steel tanks, which serve as storage for two 16x6-foot Krupp mills, furnished by Thos. Prosser & Son.

The material upon passing through the tube mills has received its final grinding and is now the finished product, and from these mills it is elevated to a bridge, across which a belt conveyor carries it to the stockhouse. Here are 20 separate bins, each with a capacity of about 1000 bar-

rels, and they are filled by a conveyor running the full length of the building. Just below the floor level and running along the front of the bins is a screw conveyor, which takes the cement from any bin desired and carries it to the far end of the building, where the packing-room is located. At this point the cement is received by an elevator, which carries the cement to four packing bins, from which the cement is packed into bags by automatic bag-packing machines, supplied by the Richardson Scale Co., New York city. The railroad side-track runs through the packing-house, and the bags are loaded on the cars from the packing floor, which is on a level with the floor of the cars.

The main power installation consists of two 400-horse-power heavy-duty engines and one 300-horse-power engine, all of which were made by the Buckeye Engine Co., Salem, Ohio. The two large engines furnish power by means of rope drives to the rock mill and clinker mill, respectively, thus making these departments distinct and independent in operation. The third, or smaller engine, is belted to a counter-shaft which furnishes power to the kiln building and also drives two 120-kilowatt Westinghouse generators. These generators furnish power for the electric lighting and for driving motors, which are used freely throughout the plant, and which were furnished by the Westinghouse Electric & Manufacturing Co., Pittsburg, Pa.

An advantageous feature is a separate power plant for running the crushing department. This consists of two 125-horse-power return-tubular boilers and one 175-horse-power engine, all furnished by the Frost Manufacturing Co., Galesburg, Ill. The crusher power-house also contains a steam-driven air compressor made by the Ingersoll-Rand Company, New York city, which furnishes air to the quarry drills.

A splendid water supply is available

from the Antietam creek, which adjoins the plant, and a filtering system made by the W. B. Scaife & Sons Company, Pittsburgh, Pa., has been installed in connection with it.

It will be observed that immediately preceding and following each separate department large storage facilities are provided. Thus in case of a temporary shut-down in any one department the other departments may continue, either drawing upon the reserve supply preceding them or increasing the reserve following them. By virtue of this storage capacity the chemist is also enabled to keep well ahead of his work.

The testing department consists of a large laboratory thoroughly equipped with every convenience for making analyses and tests.

Throughout the design of this plant it was the aim not only to introduce, when

Cement Co. has secured an ideal industrial plant.

The two accompanying illustrations show the manner in which the plant has been laid out and the arrangement of the buildings for a continuous forward movement of the materials from the raw state to the finished product. On the left of the smaller illustration can be seen the scale-house and crusher building, where the raw materials are first received in the plant, and then in succession the various structures through which the materials pass until they reach the large building on the extreme right, which is used for storage and packing for shipment. Next to the storage-house can also be seen the laboratory, which is constructed of cement, with a cement tile roof. The railroad trestle running the full length of the plant is used for dumping coal and shale. The large illustration shows the splendid location of

ments, which are used with the consent of Dr. William Bullock Clark, the head of the survey:

"The limestone on this property is not only very uniform in composition, but is also low in content of magnesia. In none of the many analyses that have been made has the magnesia been found to exceed 3 per cent. and is usually much below this, and it is fine-grained, medium hard and blue on fresh fracture, weathering from a light gray to a dove color.

"The following analyses, made by Mr. Charles Catlett of Staunton, Va., of these limestones and shales may be considered as typical of the composition of these materials on the Maryland Portland Cement Co.'s two properties:

	Limestones			Shale		
Silica.....	7.06	6.04	5.62	62.20	63.91	59.79
Alumina....	1.08	1.96	1.21	21.25	18.73	22.63
Iron.....	1.01	.62	.81	5.23	8.12	3.16
Lime.....	49.14	48.88	49.79	.36	none	.73
Magnesia..	1.70	1.72	1.60	.94	1.83	2.43
Ignition...	40.02	39.30	40.96	....	7.41	7.73

was then tested and the results obtained were satisfactory in every particular.

"The following analysis gives its composition and is indicative of the quality of cement that the Maryland Portland Cement Co., under good management, ought to be able to put on the market:

Silica.....	23.17
Alumina.....	6.01
Ferric Oxide.....	2.60
Lime.....	65.54
Magnesia.....	2.72

"The company owns 131 acres of limestone land, which is estimated to contain close to 75,000,000 tons of stone, most of which is above water-level, both suitable for the manufacture of Portland cement and susceptible of economic quarrying, and it is also abundantly supplied with shale, and these materials are sufficient to run the plant at its present capacity for 800 years. Water, which is used in greater quantity by weight than any other raw material in cement manu-



VIEW SHOWING PROXIMITY OF ANTIETAM CREEK, LIMESTONE QUARRY AND TRACKS TO MARYLAND PORTLAND CEMENT CO.'S PLANT.

feasible, every known mechanical device for rapid and efficient handling of the materials, but also to duplicate as far as possible such apparatus in order to avoid delays and shut-downs arising from the breaking of any special parts. This wise and liberal policy of the company is not only indicated in this feature, but also in general construction throughout the plant.

It is well known to those interested in cement manufacture that there is probably no industry in which the wear and tear on the machinery and apparatus is so great and in which the maintenance charges are such a large percentage of the cost of manufacture. With these facts in mind the management desired the design and construction of a plant which would not only produce cement at the lowest possible cost, but one which would show economy in the cost of maintenance and repairs, and in carrying out its plans along these lines the Maryland Portland

the limestone quarry and Antietam creek, containing the water supply to the main plant. The distance from the quarry to the point where the material is received in the plant is about 800 feet. In both of the illustrations the tracks of the main line of the Western Maryland Railroad can be seen running directly alongside the plant, this giving direct shipping facilities, which are still further enlarged by those heretofore mentioned as centering at Hagerstown, all freight to this point being transferred for a nominal shifting charge. Taking into consideration the proximity of the raw materials, the splendid arrangement of the plant and the splendid shipping facilities, the Maryland Portland Cement Co. is in a position not only to manufacture economically, but to reach wide consuming area directly and quickly.

Dr. Grasty in the report on the deposits of this company for the Maryland Geological Survey makes the following com-

"It will be observed that, besides the constituents being properly proportioned both in limestone and shale, each is very low in magnesia, while the former is quite high in its contents of clayey matter. In the calculation of cement mixtures where two of the above analyses were used, only about one part by weight of shale is required here for six parts by weight of limestone. The amount of shale entering the mixture is thus seen to be relatively small because of the argillaceous content in the limestone. This is regarded as a great advantage in view of the fact that the shale is hauled from a separate quarry.

"Before the limestone and shale properties were purchased large samples of these materials were procured and shipped to the well-known commercial chemists, Booth, Garrett & Blair of Philadelphia, Pa., where in their laboratory they were made into Portland cement. The product

facture, also exists in abundant supply on the company's property."

The officers of the company are Messrs. DeCourcy W. Thom, president; Loring A. Cover, vice-president, secretary and treasurer; Carlton M. Goodman, superintendent, and Harry B. Warner, sales manager. The main offices of the company are at 820-822 Equitable Building, Baltimore, Md.

The initial daily capacity of the plant will be 800 barrels of "Security" Portland cement.

The Chamber of Commerce of Hickory, N. C., has been organized with 67 members, and with Messrs. E. L. Shuford, president; J. L. Riddle, vice-president; Dr. K. A. Price, secretary and treasurer, and J. C. Martin, M. H. Groves, K. Z. Menzies, A. A. Shuford, Sr., J. W. Blackwelder, J. D. Elliott, C. H. Geltner, G. N. Hutton and C. C. Bost, directors.

## IRONMAKING NORTH AND SOUTH CONTRASTED.

Mr. Joseph G. Butler, Jr., of Youngstown, Ohio, one of the leading ironmasters of the central West, writes to the MANUFACTURERS' RECORD as follows:

"My first visit to the South was in 1890, at the time the Iron and Steel Institute of Great Britain came over here. The entertainment of our British and Continental brethren was on a very broad scale; special trains were procured and the visitors taken all over the South and—those who wanted to go—all over the Lake Superior ore region. I was one of the subcommittee and had special charge of a train South. I was greatly impressed at that time with the South and its possibilities. Upon my return home I wrote out a report of my visit and impressions. I have delayed this letter for several days, hoping that I might find this document, but it has been mislaid. I remember, however, distinctly of advising my business associates to buy a big block of Pocahontas coal, which could have been had then for about \$20 per acre, and I also remember of advising the purchase of a block of the red ore, but my advice was not followed.

"I have since 1890, through the newspapers, by correspondence and by contact with many people interested, kept in quite close touch with the South, and you may be assured that I was exceedingly pleased when it was decided that I was to be one of the party to make the memorable trip in the early part of April last.

"The attention that we received from the good people of Birmingham impressed me very deeply indeed, and I came away with the feeling that true Southern hospitality had never been overrated. I was greatly impressed with the marked improvements in the furnaces and appliances and in the better conditions of the coal and ore mines. For instance, in 1890 there were very few furnaces that made over 100 tons per day, and, to my very great surprise, I was shown the records at the Ensley furnaces where they had exceeded 400 tons per day, and this with ores running very much lower in iron than our Lake Superior ores.

"I realize more than ever the difficulty in managing the Southern properties as compared with the Northern properties. I touched upon this lightly, as you will remember in my address at the last Gary dinner. For instance, in the North our ores are mined by one set of men; the people who run the furnaces have absolutely nothing to do with the mining of the ore except incidentally; the care and burden of this is done by an entirely separate organization. The properties are stripped, the ores are mined, sorted if necessary, hauled to the Lake Erie ports, and then another set of men take hold with the boats; the samples are made and the ore is delivered down at the Lake Erie ports. Then it is taken hold of by another set of people, either docked or placed on the cars, resampled, shipped to the furnaces, and there our work begins.

"In the North our limestone is quarried for us, handled by the railroads, crushed and delivered to the furnaces in perfect condition for use. Our coke is made for us in the Connellsville region and elsewhere, the coal being mined and the coke made by another organization. It is then delivered to the different lines of railroads and shipped to our furnaces, and we have nothing to do with it but to unload it and use it up.

"Now, per contra, in the South all this burden of mining and shipping the ore, mining the coal and making it into coke, quarrying the limestone and delivering it to the furnace, and, to a very great extent,

the management of the railroads, is done by one single, effective management. It is therefore my judgment that even a higher grade of talent is required in the South than in the North. It is also quite apparent that the management in the South has, since 1890, gradually improved in every respect, and there is still room for improvement in the matter of preparing the ore and the coke. The quantity of ore in the South is, of course, largely a matter of computation, and I have no doubt the figures given me are correct. It is simply fabulous.

"The increased use of the basic process is going to be a very great help to the South. Bessemer ores are getting scarcer and the use of the basic process is widening both North and South. The time is coming when a great deal of the pig-iron shipped North will be manufactured at home into various different forms. This, I think, will be first taken in hand by the Tennessee Coal, Iron & Railroad Co. I believe it is the intention of the Corporation to build additional finishing plants in the South.

"The South at present has the advantage in the matter of lower costs than the North in the making of foundry iron. This, however, is largely a matter of bookkeeping. The ore and coke and limestone and nominal transportation charges are all bulked together and the cost arrived at in that way, while in the North the furnace is charged with the ore at the market price, with the coke at the market price and with the limestone at the market price, each of these items giving to the producer a return for the investment. If Northern costs were figured in the same way as Southern, the difference would be found not to be so great.

"It is a matter of surprise to me that Southern producers would think of selling their product as low as has been done during the past few months.

"As stated by me on two or three occasions while in Birmingham, I think the property of the Tennessee Coal, Iron & Railroad Co. is second only in importance to that of the Carnegie Steel Co. as one of the subsidiary companies of the United States Steel Corporation. I believe the leading officials of the Corporation so view it, and will go forward and build it up and strengthen it. This will require many years and much expenditure of money. Heretofore the Tennessee property has been considered more or less as a speculative affair. It was taken hold of, however, in earnest by the officials who had immediate charge prior to the acquisition by the United States Steel Corporation, and I have no doubt had these people continued in the ownership that great improvements would have been made. However, the property has been taken out of the speculative class and will gradually be put upon a solid earning basis and placed in the investment class by the people now in charge, who have the necessary capital and the necessary practical as well as business talent.

"Iron ore is, of course, the foundation of all the steel and iron producing interests. There are three great sources of supply—Lake Superior, the South and Cuba. These are supplemented to a considerable extent by the Cornwall deposits in Pennsylvania and the magnetic deposits of Northern New York and New Jersey, which are being electrically treated and are now used in the mixtures of all the Eastern furnaces. There is plenty of room for all these sources of supply, and none of this valuable material given to us so bountifully by nature should be thrown away. In other words, I believe that the

makers and producers of pig-iron and on up through these various finished forms should receive a fair remuneration and produce only such quantities as are needed for consumption.

"There is under consideration at the present time a statistical bureau for the entire pig-iron interests of the United States. I am quite sure that if the Southern producers will join heartily in this movement it will be very much to their advantage, as well as to the advantage of their brother-producers in the East and North. The committee who had the matter of forming this bureau of statistics in hand decided that to start it in a practical way the manufacturers should be asked to report to a commissioner—

"First. In the first report to give the stock on hand in tons by grades, and subsequently—

"Second. To report the weekly make in tons by grades.

"Third. The weekly shipments in tons by grades.

"Fourth. The weekly sales in tons by grades.

"That the commissioner be instructed to tabulate the information received and to give the recapitulation each week only to those furnishing reports, and that a uniform blank be prepared and sent each member of the bureau, and that weekly reports be made at the close of business as of 6 o'clock P. M. each Saturday.

"In overhauling my papers and searching for the 1890 report above referred to I came across a copy of a letter which I wrote to the editor of the *Iron Age* on March 14, 1885, 23 years ago. It has occurred to me that this letter, or a part of it at least, would bear reproduction, and it is copied below:

"FREIGHTS ON COKE, ORE AND LIMESTONE IN THE MAHONING VALLEY.

"To the Editor of the *Iron Age*:

"My attention has been called to an editorial in your journal of March 12, 1885, headed 'Birmingham, Alabama, as an Iron-Producing Center.' There is one paragraph in your article which does injustice to the different lines of railroads centering in the Mahoning Valley. It would appear from your standpoint that no reductions in railroad rates have been made here. This is a very grave mistake. Within the past 60 days some very heavy reductions have been made, both on local rates upon raw materials and in

through rates upon products. For instance, the rate on coke, which has heretofore been \$2 per ton, has been reduced to \$1.60, and as it takes nearly one and one-half tons of coke to produce a ton of pig iron, there is a saving to the furnace-owners of at least 50 cents per ton in this item alone. The rate on iron ore from different Lake ports to the Mahoning Valley has been reduced to 75 cents per gross ton, which includes all dockage and handling charges at the point of shipment. Rates on limestone have also been materially reduced. In short, the railroad people have done a very handsome thing in the way of assisting the owners of furnace plants in this valley, not only in the reduction of rates, but in adjusting other and discriminating rates to and from nearby competing points.

"While I am not prepared to say that still further reductions cannot be made and still leave the railroad companies a fair compensation for handling the business, I think they should be given credit for what they have done. 'Give the devil his due.'

"Regarding the cost of producing Southern pig iron, there seems to be a wide divergence of opinion, the estimates varying from \$8 to \$13.50 per ton. It should be remembered, however, that the cost of Southern iron, as a rule, is made up without profit to the producers of the raw materials entering into the composition of the iron, while the reverse is true in the North. For instance, a 'conservative estimate' of the cost of producing pig iron in the Mahoning Valley includes a profit to the Lake Superior ore miner, a profit to the Connellsville coke miner, and a profit to the transportation companies hauling the different materials. So far as the Mahoning Valley is concerned, with the recent reductions in railroad freights, the greatly-reduced prices of Lake Superior ore and reduced labor, coupled with the admitted better quality of pig iron produced, we expect to meet our Southern competitors on common ground. Northern and Southern irons mingle well together and typify the bond of union between the North and South, cemented and welded together for all time to come. Very truly yours,

"J. G. BUTLER, JR."

"I might say further that the South has a special advantage over the North in this particular, the railroads South vary their carrying charges somewhat with reference to the price of pig-iron. When iron advances and there is a good round profit the railroads advance their rates and take a part of the increased profit. When pig-iron declines and there is but little margin the railroads reduce their rates and help the furnaces out. Our railroads in the North do not handle the matter in this way."

## Great Reclamation Undertakings in Louisiana.

[Special Correspondence Manufacturers' Record.]

New Orleans, June 13.

Work was begun last Tuesday on the drainage of a 50,000-acre tract of wet prairie lands in Lafourche parish, these lands having formerly been a part of the extensive Wisner holdings in lower Louisiana. The tract named is now, in main, the property of the Louisiana Alluvial Lands Co., Ltd., a Louisiana corporation, with E. W. Wickey and J. W. Lobb of Chicago as president and secretary, respectively. Indiana capital is most largely represented in the enterprise. Included in the boundary of the 50,000 acres is a tract of 2548 acres, fronting on the Harang canal, which is the individual property of W. E. Wickey and John A. Brumbaugh of Elkhart, Ind., the latter one of the oldest dredging contractors in the business, who has done a large amount of the drainage work of Indiana and other States in the North. All of the parties interested in this present enterprise are familiar with the drainage of wet lands and are much impressed with the possibilities presented by conditions in Louisiana.

Messrs. Wickey and Brumbaugh were the first of the Northern dredge contractors to become interested in Louisiana lands, following the presentation by the MANUFACTURERS' RECORD of facts as

to the vast possibilities for profitable operation which the drainage and reclamation of the wet lands of Louisiana contain. They have perfected their plans for rapid and continuous development of their entire holdings, and will prepare the lands for cultivation and sell them to small farmers, a plan which is considered most likely to bring large returns and be of greatest benefit to the country besides. There is a constant and growing demand for small farms not possible to be supplied at present on account of the improved lands being almost entirely in the hands of large plantation owners, and it is declared that the demand for small farms will continue and increase as rapidly as lands can possibly be prepared for cultivation.

This is the second 50,000-acre tract of wet prairie lands in Lafourche parish that is in process of development today, the other being a tract partially drained and under continued development by Mr. Wisner himself, several thousand acres of which are occupied and in cultivation. The significance of this development may be realized when it is understood that the parish of Lafourche contains approximately 30,000 people, and all the lands in this parish that are under cultivation to

day aggregate only 50,000 acres. When the 100,000 acres in process of development have been fully prepared for cultivation there would be a possibility of an added population of 60,000 people if the same ratio is maintained. Lafourche parish contains the most dense population of any agricultural community in the United States. The people live in homes located on the "front" lands on the bayou, and for 42 miles the road along the bayou bank is like a street in a city, the average distance between the houses being 210 feet. On account of this phenomenal density of population cultivated lands in Lafourche parish are among the highest-priced of any in the State, and it was palpably on account of all these conditions that Lafourche was selected as the site of the extensive reclamation enterprises mentioned. In addition to the 100,000 acres in hand, there are in Lafourche parish 415,000 acres of wet prairie lands equally valuable and susceptible of development, and if the present ratio of population to cultivatable territory were to hold out, there would be in Lafourche parish when all these lands are occupied a population of over 400,000. And that they would be a prosperous and thrifty population—that they would be supported comfortably and well—the condition of the present population gives ample proof.

Mr. Wickey was here to be present at the beginning of the work on his company's property. The dredge started in from the Harang canal side at 9 o'clock on the evening of June 9 and worked all night. A double shift will keep it going continuously night and day, as it is the intention to have 2500 acres ready for cultivation this fall. Another dredge is on the way now, and by fall it is proposed to have three, if not four, dredges at work on the tract. The first dredge was built at Lockport, La., by the American Steel Dredge Co. of Logansport, Ind., and considering the fact that the mechanics, coming from Logansport, were unaccustomed to the climate and that all extra supplies had to be procured in New Orleans, some 35 miles distant, the work was done in an extraordinarily expeditious manner. There was but five weeks' time taken to build the hull, erect and install all the machinery and set the dredge to work. The machine is equipped with a 1½-yard dipper.

It is proposed to dig commercial canals through the tract, north and south, as well as east and west, bisecting the entire tract, and to provide levees for the various drainage districts. Laterals will be run to make the drainage complete. The first district to be completed will comprise 7500 acres, but it will be developed in divisions, so that tracts of 2500 acres will be developed at a time, the second and third being added to the first as the work is completed and being included in one pumping district. It is proposed to have the pump going by December 1 at the latest.

In this connection it may be of interest to note what has been accomplished in the way of reclamation work in Louisiana and what is now being undertaken. Until very recently there was little or no general interest in the proposition, and skepticism was so pervasive that anyone who proposed the wholesale reclamation of the so-called swamp lands was considered of doubtful business sagacity. "Trembling prairies" these wet lands were called here, and it was the theory of many of the natives that beneath the surface there was a large body of water communicating with the Gulf, and on this body of water the grass and a thin layer of soil floated, as do the water hyacinth and some other aquatic plants. The first man to see the possibilities to capital and to give practical demon-

stration of his faith in the future of these lands was Edward Wisner, who had come to Louisiana from Michigan, an invalid, a good many years ago, and who had been changed from a subject of tuberculosis to a man of rugged health by the Louisiana climate. With his partner, J. M. Dresser, he began the purchase, about eight years ago, of large tracts of wet prairie lands until his holdings aggregated 1,300,000 acres, and subsequently he bought his partner's interest outright. Up to that time no one had ever bought swamp lands pure and simple for the express purpose of draining and reclaiming them, and of such little value were they regarded that only particularly well-located lands were held at as much as \$7.50 an acre, while vast tracts were secured for as little as 12½ cents an acre. While there had been enough done previously to demonstrate the entire practicability of the scheme of reclamation, the work attracted no attention, and the local public were still unconvinced. As long ago as 1895 Smith & Ziegler, now the Willswood Planting Co., in Jefferson parish, had reclaimed about 500 acres of wet prairie lands on precisely the same lines—canals, laterals, levees and a pumping plant—as are standard today. While the tract was the swamp end of a large tract of "front" lands, as were all other wet lands that had been reclaimed up to the advent of Wisner, yet the process employed was so entirely applicable to all the millions of acres of Louisiana wet prairie lands that it is amazing how universal and deep-seated was the skepticism that prevailed. Col. John R. Gheens, another Northerner who found completely restored health here, he having fled Kentucky 25 years ago to escape constant malarial attacks, had also demonstrated the entire feasibility of draining the wet lands, as some eight years ago he had begun to reclaim the wet lands back of his front lands, until now he has 2000 acres of such reclaimed lands under cultivation, raising big crops of cane and farm products generally, and is taking in more all the time. But when he began some of his sympathizing neighbors passed sleepless nights worrying over the foolhardiness of the "misinformed" man from the North who was about to waste his money so!

Whether entire and universal conviction has yet occurred in the local mind is not at all certain. In spite of all the demonstrations that have been made. How much of the skepticism is due to the interested motives of such old-timers as do not like present conditions disturbed or who regard the newcomer in any guise as a possible menace to his prestige and prosperity it might be difficult to determine, for it is hard to concede perfect candor to such statements as one made by a prominent ex-politician and present large land owner here, that he "wouldn't give 25 cents for all the wet prairie lands down here," a remark that stopped a contemplated investment of thousands of dollars in Louisiana lands, and to others among men of position and who are large owners of front lands, that "there is very little of the wet lands that can be profitably reclaimed, and we don't need any more land than we have, anyhow!"

In the face of all such opposition, "knocking" and skepticism, the work has been steadily going on, nevertheless. Within the sugar district probably 35,000 acres of wet lands have been reclaimed. Some of these were cypress swamp lands, and almost all were small patches, nearly every plantation having some reclaimed swamp lands.

About five years ago Wisner began his first work of reclamation. He demonstrated that it was a very simple proposition to make all the so-called swamp

lands in Louisiana ready for cultivation, and that when made ready there are no richer agricultural lands on the globe, as they are composed entirely of silt and decomposed vegetable matter. Owing to the character of this soil, all that is necessary to do to reclaim any sized tract anywhere is to dig canals of sufficient capacity and laterals in proper number; protect the tract by levees against the water from the undrained lands; then install a pump and take the water off. The steepness of the banks of the bayous and of the rivers indicates the firm character of the soil, and as it is soil all the way down for as much as 1000 feet in some instances, there is no seepage of consequence for the pumping plant to contend with. That these wet lands are not overflowed lands, or, in fact, swamp lands at all, but simply rain-soaked because not provided with facilities for drainage, is evidenced by the fact that it has been found necessary to run the pump on lands reclaimed not more than a few days throughout a year, and then only on the occasion of an unusually heavy rainfall.

The whole story is told in the case of the New Orleans Land Co., which owns about 3200 acres of land fronting on Lake Ponchartrain and extending a mile and more toward the center of the city. The property is all within the city limits, and so gets the benefit of the complete drainage system that has been installed in New Orleans. By the construction of canals which flow into the city drainage canal the 2000 acres within the district the canal affects has been transformed from a cypress swamp land into land as dry as GREAT RECLAMATION—GAL 2.... can be found anywhere in this section. The immense pumping plants operated by the city have lowered the water level there as much as eight feet—an influence felt all over New Orleans, for that matter, for whereas water was formerly found within a few inches of the surface almost anywhere in New Orleans, so that burials were made in vaults above ground and a cellar was undreamed of, it is now a common sight to see a workman at the bottom of a trench throwing dry earth out from a depth of six feet or more. Buildings formerly had their power plants above the surface, occupying space valuable for other purposes and annoying tenants by the noise they made. The Maison Blanche, the newest office building here, has its entire elaborate power, refrigerating, heating and lighting plant 10 feet beneath the sidewalk floor, while the swimming pool in the basement of the proposed Audubon Hotel is 26 feet below the level of the street.

The Ponchartrain Realty Co. has just finished a 12-mile canal and installed a pumping plant that will drain an 8000-acre tract of salt marsh lands. This tract is within the city limits, and although within 20 minutes' ride from the center of the city, has been ignored by capitalists on account of its water-soaked condition. Plans for its development are now under consideration by the owners.

With such demonstration of the ease and effectiveness with which the wet lands of Louisiana can be made dry and put in shape for the most profitable cultivation, men in the North who are familiar with drainage propositions have begun to take hold of the situation here in a large way, and by purchase and contract they are preparing for a notable development right away. Wisner himself has drained and fully reclaimed some 3000 acres, and has 50,000 additional acres on which the work is about half done.

One of his conspicuous developments is that at Labranch, in St. Charles parish, where 1000 acres of what was formerly about the most forbidding and desolate

looking land in Louisiana has been ditched, leveled and pumped by an organization called the Suburban Realty Co., and 300 acres are in cultivation this year, raising the finest kind of truck and garden products. Sales have recently been made of these reclaimed lands at the rate of \$135 an acre.

Another development in St. Charles parish is that the Wills Bros., experienced Illinois dredge men, have contracted for. They have purchased 7000 acres of the Wisner-Crawford holdings, located along the Southern Pacific railroad, near Paradise, and with that development will at the same time drain 3000 additional acres adjoining this tract belonging to Wisner and his associates. Wills Bros. will start two dredge boats down the Mississippi as soon as they finish up a small amount of work on the Illinois river now in hand, and they are arranging to begin the development of the entire 10,000 acres by September 1.

Also in St. Charles parish are the operations of G. A. McWilliams of Walnut, Ill., a dredging contractor of 15 years' successful experience. He has a contract to drain 10,000 acres of land belonging to the Wisner interests, and he has bought from the same interests with him, through O. W. Crawford, manager of the Truck Farm Land Co., and one of the men most actively engaged in interesting outside capitalists in this reclamation work, a tract containing more than 28,000 acres which he will ditch and drain and put in shape to sell in small farm tracts.

In St. Bernard parish the St. Bernard Land Co. and subsidiary companies, operating on lands originally among the Wisner holdings, own 114,000 acres which are in process of reclamation, a number of Chicago and other Northern people being interested in this work. Also in St. Bernard are the holdings of the Phillips Land Co., 40,000 acres in extent, on which development work will be commenced as soon as plans have been decided on. In the St. Bernard parish properties the work of interesting outside capital has been largely in the hands of N. A. Baker & Sons of New Orleans.

In Plaquemines and Jefferson parishes H. E. Overstreet, a well-known contractor of Chicago, has purchased over 18,000 acres through O. W. Crawford, and has his plans perfected for the immediate development of the lands.

Besides these developments, actually completed or definitely outlined, there are many others in contemplation, negotiations for which are in a more or less advanced state. With the shutting down of work in the North on account of the completion of drainage work there in so many cases and also because of the panic, Northern dredge men are more readily interested in the Louisiana situation than they would have been at any previous time. It would appear that this is the psychological moment for successful efforts to get them in line for development work in the South, and it is significant that, without exception, whenever they have made a study of the conditions on the ground, they go away enthusiastic over the possibilities here. Very naturally the dredge men will be the first people to become interested. As the lands are brought in and sold to farmers at prices yielding a good return on the investment the general land man and the ordinary investor will begin to take interest, and the opportunities of the present day will be looked on very much as are those that Chicago or Kansas City real estate presented some 40 years ago.

ALBERT PHENIX.

During the past year and a half 1000 pecan trees have been planted on a tract of 50 acres of land in Duval county, Fla.

# CURRENT EVENTS AS VIEWED BY OTHERS

## COTTON AND STEEL.

[New York Times.]

The cut in the steel trade followed by a few days the cut in the cotton trade, but there is a great difference in the results. In the cotton trade the cut was severer, and the improvement decided. In the steel trade the cut is claimed by some to be inadequate, and there is hesitation until it appears certain that the bottom has been reached. There is a demand for further cuts, and a suggestion of reduction of wages.

There is an obvious contrast between the two trades, and it is worth while drawing it, because it involves principles of general application. Obviously cotton goods are a different sort of commodity from iron in all its forms. The final consumer of cotton is the person who wears it. His purchases are influenced by personal considerations to a greater extent than those of the consumer of iron products. When a man needs a shirt he is going to buy it, if he can, without much regard for the price. There is a margin within which the price of cotton goods controls the consumption, but it is narrow. The corresponding margin in the iron trade is broader, and is influenced by another set of considerations. There are individual buyers of iron and steel who are influenced similarly with the buyer of fiber staples, but the main trade is influenced more by considerations of profit than of cost or need.

Not many houses are built because those who wish to live in them need shelter. That may be a reason for buying a house, but houses are built before they are bought, and they are built because the builder seeks a profit on construction, rather than because the builder needs a shelter. The same is true of railways and the railway supply trade. A railway's purchases of iron and steel correspond to no personal considerations, but to the prospect of profit either in the carrying trade or even in the incidental profits, among the most reprehensible of which may be specified the issuing of securities, watered or otherwise. Cases have been known in which captains of industry have built railroads in advance of necessity, in a spirit of speculation. It was a heinous thing to do, and this spirit of enterprise has been checked. Railroads are not now being built for that reason, and are not likely to be. They will be needed, but they are not needed by the persons who will build them.

This does not exhaust the distinctions, but one more may be specified. It is not open to the buyers of shirts to make a bargain with the seller respecting anything except the price of the shirt. But the builders of railways and the purveyors of railway supplies are so organized that their interests may be controlled by mutual arrangements. The price of the railway product—its transportation facilities—is regulated by law, while the steel market is open so far as the law goes. Now, is it a square deal that one set of prices should be forced down or prevented from rising, while the other should be exposed to every vicissitude? If the statute gives stability to freights, why may not sellers of steel seek in their business similar stability? And if commodity prices rise with costs, why should not freight rates?

If the argument is to prevail that all price regulation is uneconomic, then let all prices remain free. But assuredly it is not economic to regulate one set of related prices. In no case has the country a moral or economic right to prosper at the

expense of bankruptcies and insolvencies. We tried that method of reviving trade once, and we are trying another now on the hither side of bankruptcies and bargain sales.

There is a cheapness of commodities which is undesirable at the cost of such cut-throat conditions as those under which the Carnegie Steel Co. thrived, and the Steel Trust was made necessary as a refuge from general bankruptcy. Cheapness is desirable, but not excessive cheapness. Destructive and unintelligent competition is not so highly esteemed as it once was.

## A NATIONAL NUISANCE.

[Louisville Courier-Journal.]

There now comes from Washington a statement from a number of correspondents that the announcement of a projected Roosevelt crusade against predatory wealth to cover the period between now and the November election was merely a fine example of imposition upon the public by a press bureau in the vicinity of the White House. The story does not lack probability.

"Press agency" in politics is a national nuisance. It is a wise correspondent that knows his own news sources and a wiser news editor that knows the character of the news which comes over the wire from a point 1000 miles from the newspaper office at which it is put in type.

A short time ago there was a deal of comment about the tainted news sent out from Washington by press bureaus maintained as journalistic lobbies for certain bills in Congress. Greater possibilities for evil exist in the opportunities of a national administration to make the press associations, the special correspondents and even the opposition newspapers serve the interests of the party in power by keeping news channels open to correspondents who will publish what is dealt out from the White House and other sources of important news in the national capital and closing the channels to correspondents who are not "cuckoos." No administration has more keenly appreciated the magnitude of the possibility for making the press an aid to the achievement of ends than the present one, headed by a Chief Magistrate of whom it may be said, without seeking to dim the glory of his greater qualities, that he is a genius at advertising.

A historian unfamiliar with the terminology of the newspaper business recently described Abraham Lincoln, upon the occasion of his inauguration, as "surrounded by eager press agents." He meant, of course, representatives of the press. The phrase might be applied to modern politicians and modern Presidents, especially the most modern of Presidents, chronologically and temperamentally, with another meaning.

## IRRIGATING RICE LANDS.

[Crowley (La.) Signal.]

"We have two miles of our main canal, which is 250 feet wide, ready for use; we shall have five miles ready by next spring, with 10 miles of the Opelousas lateral, which is 150 feet wide, ready to deliver water for the crop of 1909; our engines and pumps are ready to install, and we expect to water next year from 20,000 to 25,000 acres of rice."

This is the statement of J. Franklin Schell, the originator of the great Schell canal project and the founder of the Union Irrigation Co. of St. Landry parish. This great project has been in existence for

about seven years, and now seems on the fair road to being brought to a successful conclusion. The plan includes a canal 250 feet in width from a point on the Courtaubieu near Washington running across the parish of St. Landry, a distance of about 40 miles, with laterals running in a southerly direction past Opelousas and into Lafayette parish; through St. Landry and Acadia parishes to the prairie near Crowley and Rayne.

The water will come from Bayou Courtaubieu, which is a tributary, through the Atchafalaya, with the Mississippi. The water is unfailing and the lift is between 55 and 60 feet. The country through which the canal will pass is very rich in cotton, rice and corn.

## SIGNS OF BETTER TIMES.

[Savannah News.]

Signs are cropping out here and there which indicate returning confidence in the business and industrial world. In a dispatch recently in the *Morning News* from Tifton—one of the lumber centers—it was stated that, taken as a whole, the lumber situation is encouraging and that the lumbermen are elated. While the market for dressed lumber is still far from good, inquiries are more plentiful and prices show a slight advance. No doubt there will be a steady increase in the demand, and with an increase in the demand will come an increase in prices.

We stated the other day that the Central of Georgia Railway had decided to resume work on its new shops at Macon. Therefore at that point there is insured a considerable amount of employment for quite a large number of men who are now idle, and consequently there will be more money in circulation in that city. That means better times for the retail merchants there.

It is announced that the Southern Railway will soon take up the work of double-tracking its system where it left off when the panic came. It is fair to assume also that some of the men who were laid off because of lack of business will be put to work again. It is probable that the Southern will not employ a great force immediately on the double-tracking work because business will not justify it yet in doing so, but the number of men will be gradually increased as business increases.

In many parts of the State there are indications that the belief is being acted upon that within a few months the listlessness that has prevailed in business and the industries since the early part of last winter will be a thing of the past. There will be an awakening all along the line, and employers and employees will feel that another period of prosperity has begun.

Here in this city business men are feeling better from a business point of view and they are more ready to talk of new enterprises. Those who were thinking of building homes when the panic came and abandoned their purposes for the time being are now consulting architects and inquiring about prices of materials. These signs mean something, and those who are patient and understand that it will take time to get the wheels of business and industry moving freely again will not be disappointed. There will, of course, be some who will complain that they see little improvement, but they are pessimists who never see the bright side. They will still be complaining when prosperity is at the flood.

What is needed now more than any-

thing else is confidence. Business men must believe that better times are at hand and work in accordance with that belief.

## DECADENT POLITICS.

[Washington Post.]

That school of politics which teaches that a railroad is an evil, a monster that devours the people, has had its day. It taught that railroad presidents bailed with fiendish delight floods that devastated and droughts that blighted the farmers' crops. The same set taught in 1893 that as soon as a bank loaned a citizen money it set about schemes to make him a bankrupt and a pauper.

The fact is that the railroads depend on the general prosperity of the people for business, and depend on business for dividends. Whatever works as a calamity on the community, in the exact ratio works injury to the railroads that serve that community. An authoritative report has it that annually the railroads of the United States buy of American producers merchandise to the cost of \$1,250,000,000, and this independent of the stupendous gross sum the roads pay in salaries, wages and dividends.

In fact, the railroads are a perfect and infallible business barometer. When they have more freight to haul than they have cars in which to transport it, prosperity is abroad in the land; when they have more cars than there is freight with which to fill them, calamity is abroad in the land. Then what folly it is to say that a railroad is a nuisance and a public enemy.

Ere the close of dog days we are going to see the most hysterical chase of the octopus—on the stump—the voiceful demagoguery of our politics can invent or perpetrate.

## SPELLING.

[Wall Street Journal.]

Joseph H. Choate spells syndicate like this: "Sindicate," and says that it always means just that.

Some people spell lawyer as if it were "lie-ye," but the change in spelling does not change the meaning of the word.

Some syndicates are made the instrument of wrong, just as some lawyers make themselves the tools of deceit, oppression and violation of law.

But these exceptions do not change the general useful character of both syndicates and lawyers. Mr. Choate, who is a distinguished lawyer, should not indulge in generalizations so sweeping and unfair in attacking one syndicate that appears justly open to criticism.

## LABOR.

[New Orleans States.]

Here is our mission to men and women, and especially to the boys and girls who toil with their hands and gain their daily bread by the sweat of honest brows. It is not to make them discontented with their lots, but rather to show that dignity and honor are as essential to the performance of the humble tasks of life as to the more conspicuous ones. It is to teach them that the spindle and the loom, the spade and the trowel are symbols of honor and not of degraded servitude; that soft white hands and spotless clothes are not the insignia of respectability or true manhood and womanhood. The true gentleman and the true lady are not designated by the clothes they wear, for the things that make the real gentlemen and the real ladies are qualities of the heart and soul and can be cultivated in the lowly occupations of life as successfully as in the highest.

When we have convinced the humble toiler and the millionaire alike that all necessary work is honorable; that the person who seeks to thrive by preying upon others by the use of his wits is the real disgrace to society, and that the honest toiler in jeans or in calico is infinitely more useful to society and more respectable than the mere parasite in broadcloth or in silks and diamonds, then we shall have laid the foundation for real good. Let us do this, then, rather than fill the honest toiler with despair by contrasting his humble but honest lot with that of others who, while they may be more prosperous, may nevertheless not be so worthy of emulation as the humblest among honest workers.

#### TREE PLANTING. [Engineering Record.]

In some sections of the country every farm contains some barren land. At the best it may be useful as very poor pasturage, but that is all. The farmer has to pay taxes on it, and if anyone suggests to him that the planting of trees on this waste land would yield him a larger income at the end of 30 years or 40 years than its use as pasturage the suggestion would be met with ridicule on the ground that no farmer cared to wait 30 years for a return upon his labors. The use of that land as pasturage brings in comparatively little return to the State, however, while its use as timber land would be decidedly profitable, since anything which will tend to keep down the price of good timber, now soaring upward in cost at a painfully rapid rate, will be to the material advantage of all citizens. There are many tracts where spruce and pine can be grown that now are used simply as poor pasturage, being employed for the latter purpose simply because the farmer has to pay taxes on the land, and he wants to get something back from these taxes if possible. The situation must be faced that he will not plant trees without some form of encouragement, and so the suggestion has been made that the several States should encourage the development of timber tracts by exempting from taxation all land on which trees are set out. If a man must pay taxes on land unless he plants trees on it, the chances are that a good deal of such work will be done. The details must be worked out with some care, of course, so as to insure the selection of proper trees for a given locality and their planting in a suitable manner. It would also probably be necessary to exercise some supervision over the wood lots and timber tracts developed under such a law, but this supervision would be done by representatives of the various States, and not by a single great national forest bureau, and thus the dangers which some critics see in the latter organization would be avoided.

#### RECLAIMING LAND. [New Orleans Times-Democrat.]

While the trading in the local real-estate market during the week developed no features out of the ordinary, New Orleans operators in reclaimed swamp lands figured in one of the most interesting transactions in this line that has been recorded here in some time. As a result of the deal referred to 300 acres of the La Branch tract in St. Charles parish, owned by the Wisner and Dresser and allied interests, were sold at \$135 per acre, the profit to the sellers averaging more than \$90 per acre, or more than \$27,000 on the deal.

This land is not far from New Orleans, on the Yazoo & Mississippi Valley Railroad. It is generally conceded to be among the richest land of the State, and said to be admirable for truck farming purposes. Some time ago the Wisner and Dresser in-

terests bought approximately 11,000 acres of the property, paying an average of \$7 an acre. They immediately began to reclaim the land, and after spending something like \$35 per acre in the reclamation process, sold the first section of the tract during the week. Among real-estate and land investors the deal, which involves something over \$40,000, has attracted wide attention.

Another development in land reclamation that has marked the passing of the week was the organization of the Oakdale Improvement Co., which has taken over the old Verret Canal & Land Co. tract in the vicinity of Algiers. Well-known land investors and speculators are behind this project, and much concern is manifested in the operations of the new \$230,000 concern. The tract contains 3780 acres, and the value is fixed at approximately \$220,000.

#### BACK YARDS.

[Atlanta Constitution.]

The uncleanly back yard, with its accumulations of garbage and compost heaps that constitute breeding grounds for flies and other disease-spreading insects, must answer to many counts in this indictment. Despite its splendid organization and its recognized efficiency, the Sanitary Department has been unable, with the means at its command, to remedy these known and easily-removed conditions. Appropriations have not been sufficient to insure regular removal of garbage from city premises. The inconsistent ordinance that ostensibly provides for the removal of garbage, which is only one source of disease, and that requires the resident to remove his own stable compost, a health menace equally established, is likewise responsible for the grave aggravation of the original mischief. The Board of Health and the Sanitary Department have each expressed themselves in definite terms and with perfect willingness to eradicate these feeders of the death-rate once their hands are untied. It is the first and unavoidable duty of Council to discharge the latter pressing mission. It can only be done by making sufficient appropriation to insure the systematic cleansing of city premises and to give the Sanitary Department authority and means to remove all classes of disease-breeding accumulations.

#### CLEAN UP; OUST RATS.

[The Oklahoman.]

Surgeon-General Wyman of the United States public health and marine hospital service gives the warning notice that, whereas in 1895 only one country in the world was infected with the bubonic plague, at last accounts no less than 51 countries are more or less infected. This is proof that the disease has been spreading gradually despite the application of sanitary science in battling with it. Surgeon-General Wyman urges the utmost vigilance on the part of health authorities throughout the country. He recommends public and private cleanliness, suggesting that cities everywhere should clean up thoroughly, and that householders should unite with officials in a relentless war on rats.

Dispatches from Salisbury, N. C., state that the American Stone Co. of that city has received contract to furnish 30,000 yards of Rowan county granite to be used for street improvements in Chicago, and that the company recently made a shipment of granite to be used for Government improvements in California.

It is announced that the United States Government has awarded contracts amounting to more than \$100,000 for projectiles to the Tredegar Company and the Richmond Iron Works of Richmond, Va.

## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

### France Wants American Specialties.

L. Kerremans (of H. & P. Giros, Ancerville (Meuse) France), care of Henry W. T. Mali & Co., 73 Fifth avenue, New York:

"We are looking for American specialties of merit marketable in our country (France), and that could be totally or partially manufactured by us under agreement with the American manufacturer on a royalty or shop-right basis.

"We would also simply handle the article as agents and even run a separate agency, provided that we are convinced of a sufficient amount of sales to justify our action.

"We have an extensive plant equipped with the best modern machinery. We are manufacturers of projectiles to the French Government, manufacturers of all kinds of devices and appliances in iron, brass and steel, and we have also a sewing-machine factory.

"We may quote you as reference Bank of France; Credit Lyonnais; Societe Generale; Navy and War Departments of France, and Schneider (Creusot)."

### For Portugal and Colonies.

Cardoso & Co., Rua da Princeza 204, Lisbon, Portugal:

"Under separate cover we send you a copy of our periodical advertiser 'O Informador' (Portuguese for the same), issued by us, in which we publish the cards of the firms we represent; this appears at the end of each month, the edition being never less than 40,000 copies, distributed gratuitously among our numerous clientele.

"We have in addition a large number of traveling salesmen, agents and others who push our goods through the whole radius of our activity, which embraces Portugal and her colonies, Spain, Morocco, Gibraltar and the States of South America. We would charge ourselves at once with exclusive agencies of houses of all kinds in your country, and can assure them that they will derive good profit through our common interest.

"We shall be most happy to hear from you, and will give you any information you desire if it should be of interest to you to enter into relations with us."

### For Japanese Trade.

G. Borkowsky, Kobe, Japan:

"I am general merchant, and regarding imports in this country I am acting as manufacturers' agent, putting manufacturers into direct communication with native buyers. I am interested in all and everything suitable for this market (from manufacturers) not represented here.

"I may mention for your information that I am in the shipping business for 23 years, of which about 15 as commercial traveler for first-class European shipping houses and manufacturers in various parts of the world.

"I speak the colloquial Japanese (as well as eight other languages), and deal direct with buyers without interpreter.

"Thanking you for anything you might do in my interest, I shall be pleased to give those manufacturers who will communicate with me first-class references."

### Wanted for Spanish Demand.

Hijos de Jose Eusebio Rochelt, Bilbao, Spain:

"We would like to get proposals on the articles named in the enclosed list, so as to

study up the possibility of importing them into Spain. Prices ought to be quoted us c. i. f. Bilbao, and should include our commission, for if possible we would desire to operate as agents for the sellers, and not on our own account.

"We wish proposals on builders' hardware; supplies for blacksmiths, mechanics, etc.; files; saws; pumps; forges; wheels; jackscrews; emery stone for saws; cooking utensils; footwear of all kinds; intestines and casings, such as Swift & Co. of Chicago sell, but not made by them; bacon and butter (lard) in bladders; lubricators for jute wood and cotton machinery; palm oil for tinfoil factories; cocoa butter; oleins for fulling wool; butterines (of beef and sheep from feet and from bones) and nailing machines."

### Rolling Mill and Cutting Shear.

P. D. dePool, Obispo No. 7, Havana, Cuba:

"In the interest of one of my customers, I wish you to kindly put me in communication with a party who could get for me a second-hand rolling mill, from 14 to 18 inches diameter, for hot iron; also an iron cutting shear."

### Spain Wants Artificial Leather.

Hijos de Jose Eusebio Rochelt, Bilbao, Spain:

"We should like to get agency for a manufacturer of artificial leather similar to that made by the Pantasote Company of New York."

### Rome, Ga., Wants Boiler Works.

Last week at a meeting of the Manufacturers and Merchants' Association of Rome, Ga., announcement was made that the city is an admirable center for the establishment of a boiler works. Wilson M. Hardy, the association's secretary, states that there is a considerable demand in Rome territory for the products of a boiler and sheet metal working plant, and that local capital and management could readily be secured for such an enterprise. Interested parties are invited to address Mr. Hardy.

George W. Angell, consulting engineer, 42 Broadway, New York, is reported to be investigating at Chickasha, Okla., concerning the street railway and interurban railway plans of Scott Jones and others. Mr. Angell, it is said, represents Eastern banking interests which may become interested in the proposed roads. An interurban line is proposed from Chickasha to Sulphur, besides others. Altogether about \$3,500,000 will be needed.

The Illinois Central Railroad, it is reported, contemplates using the Gulfport & Northwestern Railway, which is to be built in Mississippi by the Edward Hines Lumber Co. of Chicago in order to reach a deep-water port directly on the Gulf. This, it is said, will be done by connection with the Baton Rouge, Hammond & Eastern Railroad of the Illinois Central system in Louisiana.

A movement is under way at Little Rock, Ark., to take up the plan for building the proposed line of the Little Rock & Pine Bluff Traction Co. and to complete it. There was some work done last year, and much of the right of way was secured. A committee has been appointed, consisting of Dr. O. P. Robinson, W. B. Smith, C. N. Alexander and J. M. Rose.

The St. Louis & San Francisco Railroad Co., according to a rumor from Fort Worth, Texas, has purchased, or is about to purchase, the Stephenville, North & South Texas Railway, which recently began operating between Stephenville and Hamilton, Texas, a distance of about 43 miles.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### PLANS A RAILROAD TOWN.

**Texas & Pacific Company Will Spend at Least Half a Million.**

The Texas & Pacific Railroad Co., according to a report from New Orleans, has prepared plans to build a railroad town called Addis on the outskirts of Baton Rouge Junction, at which point the new low-grade line to St. Louis connects with the Texas & Pacific. It is said that the company will spend there about \$500,000, and perhaps more.

The plans prepared by the engineers provide for yards, shops, a roundhouse with 40 stalls, office buildings and dwellings for employees. The residence part of the town, it is said, will be constructed with regard to the greatest advancement in sanitation. The streets will be wide, and ample arrangements will be made for the health and comfort of the employees, who, it is said, will number about 1500. Churches and schools will be erected.

This new town, it is said, is to be named after J. W. Addis, who is superintendent of machinery for the company, with headquarters at Marshall, Texas. The construction work is to begin in the autumn, but the necessary land has already been purchased. J. R. Paul, general superintendent of the Texas Pacific Railway in Louisiana, will supervise the construction.

### Mobile, Jackson & Kansas City.

Further information concerning the plans of the Mobile, Jackson & Kansas City Railroad Co. to improve and extend its line under the name of the New Orleans, Mobile & Chicago Railroad has been made public. A report from New Orleans quotes President L. S. Berg as saying that the first step will be to build northward from Middleton, Tenn., to a point on the Ohio river between Thebes, Ill., and Evansville, Ind. The New Orleans extension will start from Overt, Miss., and run southwest to New Orleans, about 140 miles. The terminus of the northern extension, according to a report, will likely be Thebes, Ill., that being an important railroad point, and the Mississippi is bridged there. President Berg is also reported as saying that the New Orleans line will not be built until after the northern extension is completed.

The New Orleans, Mobile & Chicago Railroad Co. has been organized under the laws of Mississippi with the following officers: J. C. Rich, president; W. F. Owen, vice-president; G. W. Cray, secretary and treasurer. Mr. Rich is counsel for the Mobile, Jackson & Kansas City Railroad, and this organization is the first step toward putting the lines under the control of the new company. The capital is \$7,500,000, of which \$5,000,000 is preferred stock and \$2,500,000 common stock.

As heretofore stated, the line to New Orleans will open up an important lumber region.

### Contracts for Interurban.

Contracts are reported let at Paducah, Ky., for building the Kentucky & Ohio River Interurban Electric Railway, which is to run from Paducah, Ky., to East Cairo, Ky., 38½ miles. Simms Bros., Thebes, Ill., were awarded the grading contract, and the bridge contract, covering 18 structures, went to Forbush & Stotlar of Benton, Ill.; the General Electric Co. will furnish the electric equipment. J. H. Jolliffe of Indianapolis, Ind., is chief engineer. One of the bridges will be 1700 feet long. The equipment of the road will include six motor cars, each 60 feet long;

two express cars of similar length and one electric locomotive for handling freight cars. The tie contract has not been let, although the rail contract has been awarded. Contracts for the power-house and substation are yet to be awarded. It is estimated that the total cost of the road and equipment will be about \$716,000. The Royal Investment Co. of Minneapolis, Minn., has done most of the financing, according to a report, and the Western Engineering & Construction Co. of the same city is the general contractor.

The officers of the road include: President, Charles F. Crump, Columbus, Ind.; vice-president, F. N. Whitesides, Franklin, Ind.; treasurer, George O. Ingram of Paducah, Ky.; secretary, L. B. Whitesides of Franklin, Ind.; general manager, John J. Freundlich of Paducah, Ky.

### Wheeling & Western Traction.

The Wheeling & Western Traction Co. proposes to build an electric railway which will connect Wheeling, W. Va., with several places in Ohio. At present it is projected to build from Uhrichsville, Ohio, to Bridgeport or Martin's Ferry, Ohio.

A letter to the MANUFACTURERS' RECORD says that the company has been organized by Cleveland men, and the head of the concern is A. E. Townsend, president and general manager. The length of the proposed line is about 40 miles, and it will go through a territory which now has no trolley connection. The company proposes to sell \$400,000 worth of stock and \$500,000 worth of bonds with which to build. But the proposition has not yet gone so far that the route has been determined or any contracts let; in fact, the money has not yet been raised, and the projectors of the plan are now trying to interest capital in the territory which they propose to cover. The road, however, is expected to touch Bowerston, Scio, Jewett, Cadiz, New Athens, Harrisville, Colerain, Martin's Ferry or Bridgeport, Ohio, and enter Wheeling through one of the latter towns, and will run through a rich farming and mining country.

The Wheeling Board of Trade has interested itself in the scheme, and the new road, it is said, will be an excellent thing for business in that city. R. B. Naylor is secretary of the board.

### New Railroad for Atlanta.

The Atlanta, Birmingham & Atlantic Railway Co. proposes to begin the operation of passenger trains into Atlanta next Sunday, June 21, but the first train will be run into that city on June 19, and its arrival will be made the occasion of a public demonstration to celebrate the opening of a new railroad there. On the day of this event one train will leave Brunswick, the seaport terminal of the line, and another will start from Thomasville, Ga. They will meet at Fitzgerald, Ga., and proceed from there to Atlanta as a single train. State and city officials, as well as officers of various business organizations and other prominent citizens, are to participate in the excursion and banquet, which are to be given under the auspices of the Atlanta Chamber of Commerce.

The Atlanta, Birmingham & Atlantic Railway, of which H. M. Atkinson of Atlanta is president, is now rapidly completing the extension of its line to Birmingham, Ala., and within a comparatively short time will have it finished and in operation.

### Summer Tours by Sea.

The passenger department of the Merchants & Miners' Transportation Co. has issued a small book entitled "Summer Tours by Sea, 1908." It contains a list of 103 routes that are possible, each being

a continuation of a sea trip on the company's steamers. The booklet tells how to reach every place mentioned, naming the connecting railroads and other lines which must be taken after the sea trip. The cost of each tour is also stated. This covers resorts from Virginia northward to points in New England and Canada. The data concerning connecting lines in several cases also include timetables, in addition to other complete information. There are many illustrations in the little book, presenting scenes on land and sea. Copies of it can be obtained at any of the offices of the company or by addressing W. P. Turner, passenger traffic manager, Baltimore, Md.

### Electric Cars for San Angelo.

President E. E. Bailey of the Angelo Power & Traction Co., San Angelo, Texas, writes the MANUFACTURERS' RECORD that the company has purchased a power plant, rails for three miles of line and the necessary overhead material for one mile, together with two double-truck combination cars of the St. Louis Car Co.'s make. It is expected to have one mile of line in operation by September 7. On or about September 15 the company will be in the market for all kinds of material needed for further construction. Mr. Bailey is also general manager of the company. The other officers are J. H. Ransom, vice-president and assistant general manager; W. D. Fuller, general superintendent; T. M. Vaughan, secretary; John W. Harris, treasurer, and J. Curtys Simmons, attorney.

### New Bridge Over the Rio Grande.

John B. Armstrong of Cameron county, Texas, a director in the St. Louis, Brownsville & Mexico Railway Co., is reported in a dispatch from Austin, Texas, as saying that as soon as the Mexican Government gives formal approval of the plans work will begin on the bridge over the Rio Grande between Brownsville and Matamoros. Arrangements for construction have been made by the directors, and the bridge is to provide accommodation not merely for the railroad company, but for wagons, carriages and other vehicles, besides persons on foot. The company is ready to start the work immediately upon the receipt of official sanction.

### May Adopt Electric Cars.

According to a report from Chattanooga, Tenn., the Chattanooga Southern Railroad, a line 92 miles long from Chattanooga, Tenn., to Gadsden, Ala., may be converted into an electric road and operated with high-speed interurban equipment. The line has been in the hands of receivers for some time, and it is said that its availability as an interurban proposition has been at least partially investigated by L. H. Parker, representing the Stone & Webster Engineering Corporation of Boston. W. W. Kent and E. C. Osborn are the receivers.

### Little Rock Branch Contemplated.

A letter from the Missouri & North Arkansas Railroad Co. to the MANUFACTURERS' RECORD says that the question of a branch to Little Rock, Ark., has not been definitely decided upon beyond a point of authorizing preliminary surveys and investigation as to construction expense and probable operating results.

### Terminals to Be Built.

The Maryland & Pennsylvania Railroad Co. has let a contract to John F. Potts & Sons to grade its new terminals on the Falls road in Baltimore. The new yards will be near the present terminal of the company, and warehouses are to be built for storing hay and other freight. The

grading is to be completed in about three months, and about 50,000 cubic feet of earth will have to be moved. There are 11 acres of land in the tract, and its preparation for the yards and buildings will require the use of steam shovels.

### Along the Virginian.

Work is being rushed on the Virginian Railway west of Roanoke, Va., and track-laying is in progress between Ingleside and Oakvale, W. Va. This will be pushed in the direction of Ripplemead, 27 miles, to meet a tracklaying party which is working from New River.

At Norfolk, Va., the construction of the large pier on Sewall's Point is being rushed to complete the substructure in three months. It is expected that the pier will be ready for use by the end of the year, when the line is to be entirely finished.

### Ore Lands to Be Reached.

William J. Oliver, Knoxville, Tenn., is quoted in a dispatch from Washington as saying that financial arrangements are assured for constructing the proposed Knoxville & Sevierville Railroad, which will be about 26 miles long, connecting those points in Tennessee. The line will penetrate the heart of Sevier county, which is rich in high-grade brown iron ore, and has also an abundance of hardwood timber. The building of the road is awaiting some preliminaries which are to be settled at Knoxville.

### Railroad Notes.

The Georgia Car Co. of Atlanta, Ga., is reported to have resumed operations after a shutdown of three months.

The Mobile & Ohio Railroad has begun the operation of freight trains to and from Birmingham, Ala., by way of the new line of the Illinois Central.

Hans Helland of Dallas, Texas, according to a report from San Antonio, Texas, has been appointed superintendent of maintenance of way for the San Antonio & Aransas Pass Railroad, with headquarters at Yoakum, Texas.

Tracy W. Pratt, a director of the Nashville & Huntsville Railway Co., is reported as saying at Huntsville, Ala., that plans have been financed for building a southern extension to Birmingham, Ala., which is to be built after the construction of the line between Nashville and Huntsville.

The Cincinnati, Hamilton & Dayton Railroad Co., according to a report from Huntington, W. Va., contemplates extending into West Virginia via Waterloo and Wellston, Ohio, in order to reach coal and timber land. It is furthermore rumored that the company has made overtures to purchase the Guyan Valley branch of the Chesapeake & Ohio Railway.

The Texas Railroad Commission, according to a report from Austin, has prepared a statement showing approximately the amount of new main line constructed in that State during the fiscal year which will end June 30. It shows that 282½ miles will have been built by the end of this month, and that this will make the total railroad mileage in Texas 12,838 and a fraction. There is practically no railroad building in Texas now.

A report from Dallas, Texas, says that the line of the Texas Traction Co. from Dallas to Sherman, Texas, will be completed this week, the machinery having been installed in the power-house at McKinney, Texas, as well as in the substation; the trolley wires are up, the track is laid, and only some surfacing remains to be done. The cars are en route from the manufacturers. The line from the terminal in Dallas to the terminal in Sherman is 66½ miles long.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

## The Majestic Manufacturing Co.

The Majestic Manufacturing Co. of Belmont, N. C., is continuing the construction and installation required for its plant, previously detailed by the MANUFACTURERS' RECORD, and expects to begin operation next fall. This company will have 10,944 spindles operated by electricity, and will produce fine combed yarns—60s to 100s. Its main building is one story high, 125x340 feet, costing about \$27,000; machinery (excepting motors, wiring, fire protection and heating system) will cost about \$145,000. Thirty operatives' cottages will cost about \$14,000. Stuart W. Cramer of Charlotte, N. C., is the architect in charge. A. C. Linberger of Mount Holly, N. C., is president of the Majestic Manufacturing Co., and S. P. Stowe of Belmont is secretary-treasurer.

## Contemplates Building a Cotton Mill.

C. M. Deal and associates of Blakely, Ga., have not as yet organized their proposed cotton-mill company, previously referred to, but they are still interested. The MANUFACTURERS' RECORD is informed the Blakely investors are prepared to subscribe to the capital stock, and endeavors will be made to formulate plans for the enterprise. Those interested are prepared to correspond with capitalists or mill men who may give consideration to assisting in the formation of a company. About 12,000 bales of cotton are marketed at Blakely during the year, and building materials can be readily obtained.

## The Rosemary Manufacturing Co.

The Rosemary Manufacturing Co. of Roanoke Rapids, N. C., has entirely completed its two additions heretofore announced, but the machinery has not been erected. This equipment is now in the mills and consists of 5000 spindles, 104 looms, carding apparatus, etc. It will be erected as soon as market conditions justify. T. C. Thompson & Bros. of Birmingham, Ala., were contractors for the buildings, and Fred S. Hinds of Boston, Mass., planned the enlargements. Electricity is used for power.

## Denton Cotton Mills Co.

The Denton (N. C.) Cotton Mills Co. has not yet begun the construction of its proposed mill, but will give consideration to details later on. The company was reported incorporated several months ago by the MANUFACTURERS' RECORD. It has a capital stock of \$100,000, and plans to build a cotton-yarn mill equipped with 5000 spindles. Messrs. Berry Davidson of Gibsonville, N. C.; J. W. Noel of Lexington, N. C., and J. A. Noel of Rock-sburg, N. C., were the incorporators.

## The Skyland Hosiery Co.

The Skyland Hosiery Co. of Flat Rock, N. C., has completed its knitting plant, previously detailed by the MANUFACTURERS' RECORD. It has erected a modern building and installed 200 latch needle knitting machines, 40 loopers, 50 ribbers and accompanying equipment for the production of seamless cotton and lisle whole and half hose. The company is capital-

ized at \$150,000, and its president is John F. Wilcox.

## The Rikard Knitting Co.

The Rikard Knitting Co. of Lexington, S. C., has been organized with a capital stock of \$10,000 and will establish plant for manufacturing whole and half-hose. It has awarded contract to the Geo. D. Mayo Knitting Machine & Needle Co. of Franklin, N. H., for 25 knitting machines. Contract has also been awarded for steam power plant. L. W. Redd, previously noted as proposing to establish a mill, is secretary.

## To Dye and Finish.

The Pacolet Finishing Co. of Lynn, N. C., has about completed a plant for dyeing and finishing, with a capacity of 2500 pounds daily. It will handle the product of the Skyland Hosiery Co. of Skyland, N. C., and the Tryon Hosiery Co. of Lynn. Some time ago mention was made of the incorporation of the Pacolet Finishing Co. with a capital stock of \$125,000.

## The Proposed Sargeant Mill.

The Sargeant Cotton Manufacturing Co. of Charlotte, N. C., is understood to be planning the erection of a mill to be equipped with 3000 spindles to be driven by electricity for manufacturing 60s to 80s yarns. This company was reported some time ago as incorporated with a capital stock of \$50,000 by Sumner B. Sargeant and associates.

## The Jewel Cotton Mills.

The incorporators of the Jewel Cotton Mills of Charlotte, N. C., referred to last week, have organized with W. W. Hagood, president; W. A. Watson, vice-president, and Thos. J. Lillard, secretary-treasurer. This company has a capital stock of \$250,000, and it plans to build a fine yarn mill of 5000 spindles equipment.

## A Vacuum Cotton Picker.

The Vacuum Cotton Picking Machine Co. of St. Louis, Mo., has been incorporated, with a capital stock of \$750,000, to make a cotton picker operated by compressed air. John S. Thurman, C. W. Thurman, W. W. Conklin, F. A. Colidge and others of St. Louis and R. C. Hallett of New York are the incorporators.

## Has Increased Capital Stock.

The Anderson (S. C.) Cotton Mills has held the meeting recently mentioned and decided affirmatively on the proposition to increase capital stock from \$600,000 to \$800,000. This additional stock will be issued as 7 per cent. cumulative preferred. The company is now operating 70,000 spindles and 1864 looms.

## The Magnet Knitting Mills.

The Magnet Knitting Mills of Clinton, Tenn., will build dyehouse, as reported last week, and the old dyehouse will be used as additional finishing-room. The new dyehouse will be of brick, 40x75 feet, costing \$2000, and the machinery will cost \$3000. This machinery has been ordered.

## Textile Notes.

J. E. Nelson and associates of Vicksburg, Miss., contemplate building a cotton rope and twine mill later in the year.

The Newberry (S. C.) Cotton Mills has not decided as to the recently-reported addition of 10,000 spindles and 300 looms.

Reports state that the Harriett Cotton Mills of Henderson, N. C., will increase capital stock from \$300,000 to \$400,000 and build another mill. This company recently completed a mill for 12,000 spindles, but has not installed the machinery.

It is reported that the Highland Cotton Mills of Newberry, S. C., is proposing to

plan the erection of its mill. This company was reported incorporated some time ago, its capital stock being \$300,000; F. N. Martin and Geo. S. Mower among those interested.

The Shingler Cotton Mills, J. S. Shingler, president, Ashburn, Ga., will not organize and build this year, but expects to complete arrangements for 1909. This company was previously mentioned as proposed, intending to build for 10,000 spindles and 300 looms.

Otto Latsch has been elected secretary and treasurer of the Hazelhurst Cotton Mill Co. of Mt. Airy, N. C., and will continue manufacturing with an equipment of 1600 ring spindles and 288 twister spindles, using both water and steam power. The product is yarns.

The Hope Mills (N. C.) Manufacturing Co. is reported as to discontinue its finishing department and install 344 looms for weaving fine cloth. This enterprise is controlled by the Aberfoyle Corporation of Chester, Pa., and it is understood the finishing will be in future done at that company's plant.

The South Carolina Cotton Manufacturers' Association has elected Messrs. Leroy Springs of Lancaster, president; T. E. Moore of Wellford and C. K. Oliver of Columbia, vice-presidents; J. A. Brock of Anderson, treasurer; T. I. Charles of Greenville, secretary, and J. D. Hammett, Greenville; C. C. Twitty, Darlington; W. E. Beattie and A. B. Calvert, executive committee.

## COTTONSEED

## Erecting Cottonseed-Oil Mill.

The MANUFACTURERS' RECORD is advised that the Cleveland Oil & Fertilizer Co. of Cleveland, N. C., which recently incorporated with a capital stock of \$50,000 will erect a cottonseed-oil mill of 20 tons daily capacity. The structure will be of frame and brick, to be erected and equipped after plans by the Platt Iron Works of Dayton, Ohio. Officers of the Cleveland Oil & Fertilizer Co. include Messrs. J. M. Harrison, president; E. A. Brown, vice-president; J. A. Lyerly, secretary and treasurer, and M. C. Wood, manager.

## Cottonseed Notes.

Cottonseed from the Augusta (Ga.) market has been shipped to Russia, Algeria and Morocco for planting.

The Cottonseed Crushers' Association of Georgia elected last week Messrs. W. H. McKinzie of Montezuma, Ga., president; R. S. Patillo of Macon, Ga., vice-president; Fielding Wallace of Augusta, Ga., secretary; Thomas Egleston of Atlanta, treasurer, and M. S. Harper, William H. Schroeder, J. A. Aycock, C. Dou-thit and R. G. Riley, governing board.

## Southern Hardware Jobbers.

The Southern Hardware Jobbers' Association, in session at Hot Springs, Ark., elected last week Messrs. W. T. Sanford, Sherman, Texas, president; H. R. Miller, Memphis, Texas, and S. C. Dinkins, Atlanta, Ga., vice-presidents; O. B. Barker, Lynchburg, Va.; J. D. Moore, Birmingham, Ala.; F. A. Heitman, Houston, and Bruce Keener, Knoxville, Tenn., executive committee.

## Old Virginia.

The real-estate department of the Chesapeake & Ohio Railway Co. has issued a 100-page illustrated pamphlet setting forth briefly and concisely the natural resources and the topographical, agricultural and industrial features of Virginia, together with information of practical interest to persons seeking homes in the State.

## MINING

## Coal in 1907.

The following table gives the quantity and value of the coal production in the United States in 1907, by States:

Quantity and value of coal produced in the United States in 1907, by States.

State or Territory.	Quantity (short tons).	Value.
Alabama.....	14,250,454	\$18,405,468
Arkansas.....	2,670,438	4,473,693
California and Alaska.....	24,068	91,813
Colorado.....	10,790,228	15,079,449
Georgia.....	362,401	499,686
Idaho.....	7,588	\$31,119
Illinois.....	51,317,146	54,687,382
Indiana.....	13,985,713	15,114,300
Iowa.....	7,574,322	12,258,012
Kansas.....	7,322,449	11,159,698
Kentucky.....	10,753,124	11,405,038
Maryland.....	5,532,628	6,623,697
Michigan.....	2,035,853	3,660,333
Missouri.....	3,906,294	6,399,616
Montana.....	2,016,567	3,907,082
New Mexico.....	2,628,959	3,832,128
North Dakota.....	347,760	560,199
Ohio.....	32,142,419	35,324,746
Oklahoma (Ind. Ter.).....	3,642,658	7,433,914
Oregon.....	70,981	166,304
Pennsylvania.....	85,694,312	163,584,056
Anthracite.....	150,321,437	155,837,770
Bituminous.....	6,810,243	8,490,334
Tennessee.....	1,648,069	2,778,811
Texas.....	1,947,607	2,969,769
Utah.....	4,710,896	4,807,533
Virginia.....	3,680,532	7,679,801
West Virginia.....	48,091,583	47,846,630
Wyoming.....	6,252,990	9,732,668
Total.....	480,450,042	\$614,831,549

\*Includes production of Nebraska and Nevada.

Practically complete returns to Mr. Edward W. Parker, statistician in charge of the division of mineral resources, United States Geological Survey, show that the production of coal in the United States during 1907 not only far exceeded any previous records in the history of the industry, but also exceeded by a considerable amount all previous estimates of the total output for that year.

The aggregate production of anthracite and bituminous coal in 1907 amounted to 480,450,042 short tons, valued at \$614,831,549, against 414,157,278 short tons, valued at \$513,079,800, in 1906. The increase in production in 1907 over 1906 was 66,292,764 short tons, or 16.01 per cent., in quantity, and \$101,751,740, or 19.83 per cent., in value.

Of this large production in 1907, 76,432,421 long tons, or 85,604,312 short tons, were anthracite coal from Pennsylvania. In 1906 the production of Pennsylvania anthracite was 63,645,010 long tons, or 71,282,411 short tons, valued at \$131,917,694, so that the increase in the production of hard coal in 1907 amounted to 12,787,411 long tons, or 14,321,901 short tons, with an increase in value of \$31,666,362.

The total production of bituminous coal in 1907 was 394,845,730 short tons, valued at \$451,247,493, an increase over 1906, when the production amounted to 342,874,867 short tons; of 51,970,863 short tons, or 15.16 per cent. The value of the bituminous production increased from \$381,162,115 in 1906 to \$451,247,493 in 1907, a gain of \$70,085,378, or 18.39 per cent.

Of the 31 States in which coal was produced during 1907, there were only two in which the output in 1907 was less than that of 1906. These were both unimportant producing States—California and Oregon—and in both the decrease in production in 1907 was due to the increased production and use of oil for railroad and manufacturing purposes. Nearly all of the coal mined in Oregon is sent to San Francisco, and the increase in the output of California oil has materially reduced the production of coal in Oregon.

Had it not been for the depressed condition of the iron and steel trade, which followed the financial depression of October, 1907, the coal production for that year would undoubtedly have exceeded a total of 500,000,000 tons, and the value would probably have exceeded \$650,000,000. As it was, the value of the coal product of 1907 exceeded by 68 per cent. the value of the total mineral product of the United States in 1880, and was nearly equal to

the value of the entire mineral product of the United States in 1897, only 10 years before.

The highly prosperous condition of the coal-mining industry as a whole in 1907 may be judged from the fact that in all but three of the 29 States (out of 31) in which the production of coal in 1907 exceeded that of 1906, the percentage of increase in value was as great as or greater than the percentage of increase in quantity. The three exceptions were Alabama, Illinois and Indiana. In Alabama the production increased 8.72 per cent. and the value 5.09 per cent.; in Illinois the production increased 23.72 per cent. and the value 22.17 per cent.; in Indiana the production increased 15.66 per cent. and the value 15.23 per cent. The largest percentage of increase in 1907 was made in Missouri, in which State both the output and value showed a gain of 51 per cent. over than of 1906. In Arkansas the production increased 43.3 per cent. and the value 49 per cent., while in Oklahoma (Indian Territory) the production increased 27.36 per cent. and the value 35.60 per cent.

Another interesting feature in connection with the coal-mining industry in 1907 was the re-establishment of Illinois in second place as a coal-producing State, its production in 1906 having been exceeded by that of West Virginia. In 1906 Illinois produced 41,480,104 tons and West Virginia 43,290,350 tons, the latter State becoming by this gain over Illinois the second coal-producing State in the Union. In 1907, however, Illinois' production increased 9,837,042 tons, to a total of 51,317,146 tons, while West Virginia's production increased 4,801,233 tons, to a total of 48,091,583 tons, thus again reversing the positions of the two States and giving Illinois second place by a margin of 3,225,000 tons.

Pennsylvania continued to outrank all of the other States in coal production, for in addition to the 85,604,312 tons of anthracite produced in that State in 1907, there were also 150,321,437 tons of bituminous coal, making a total of nearly 236,000,000 short tons for Pennsylvania alone. The value of Pennsylvania's total coal production—anthracite and bituminous—in 1907 was \$319,421,826. The value of the coal production of Illinois in 1907 was \$54,687,382. The total value of the coal product of these two States exceeded by about \$10,000,000 the value of the total mineral product of the United States in 1880.

During the first nine months of 1907 there was the usual complaint of shortage of cars, a complaint which has been heard almost constantly during the last few years. There was also much complaint of shortage of labor and of the expensive character of such labor as the operators were able to obtain. After October there was a plentiful supply of both cars and labor. It should be stated, however, in justice to the transportation companies, that the conditions in 1907 showed some improvement over those of the preceding year, particularly with reference to the manner in which the cars were moved rather than to the actual increase in the supply of transportation facilities.

The year 1907 may be considered a red-letter year in the history of the coal-mining industry. In addition to the enormously increased production and the general advance in prices, a condition of peace reigned generally throughout the coal-mining regions, this being the result of the labor agreements made in 1906 after the suspension on April 1 of that year.

Great Britain's production of coal in 1907 was 267,828,276 long tons, or 299,969,669 short tons, and Great Britain is the second coal-producing country of the

world. The coal production of the United States in 1907 exceeded by 180,480,373 short tons, or more than 60 per cent., that of the British Isles. It was more than double that of Germany, and was equal to 40 per cent. of the total coal production of the world.

#### Coal Operators.

The Southwestern Interstate Coal Operators' Association held its annual meeting at Kansas City, Mo., last week and elected James Elliott of Haileyville, Okla., president, and Charles S. Keith of Kansas City, vice-president at large. Other officers were elected as follows: John N. Hodges, Pittsburg, Kans., vice-president district No. 14; William Busby, South McAlester, Okla., vice-president district No. 21; R. G. Rombauer, Novinger, Mo., vice-president district No. 25; Bennett Brown, Kansas City, commissioner; J. H. Hibben, Parsons, Kans., secretary; W. S. Newcomb, Kansas City, assistant secretary and treasurer.

#### Georgia Mines.

At the quarterly meeting of the State Geological Board of Georgia, held in Atlanta last week, State Geologist McCallie made a report of the work done by his department during the past three months, including several investigations of mineral finds in the State. Mr. McCallie is at present investigating the water-powers of the State, and will shortly issue an exhaustive report on them.

Coal and coke loading in the New River field during May amounted to 389,540 tons of coal and 510 cars of coke, the combined loading from both the New River and Kanawha fields for May being 609,325 tons.

*The Romance of the Reaper.* By Herbert N. Casson. Publishers, Doubleday, Page & Co., New York. Price \$1.

Many men are alive today who were born before the story of the mechanical reaper began. What that story is, from the days of Cyrus H. McCormick's crude invention in Virginia in 1831 to the present time, when all the work of planting and harvesting wheat has been reduced to a mechanical science, is shown in most fascinating style by Mr. Casson in his little volume of less than 200 pages. The romance, as skilfully unfolded by him, deals with the development of the labor-saving instinct in our machinery age, the competitions of rival machines and their manufacturers and the combinations which have found their highest development, perhaps, in the International Harvester Co. The romance shows how the harvesting machine, now manufactured in this country at the rate of one machine for every two minutes, has cut down the time of cutting wheat from three hours to ten minutes a bushel, how the reaper has abolished drudgery and hand labor more than any other invention of the day, and how it has been a potent pioneer of American ideas abroad and has become a barometer of civilization. There are but five chapters in the book, headed, respectively, "The Story of McCormick," "The Story of Deering," "The International Harvester Co.," "The American Harvester Abroad" and "The Harvester and the American Farmer." It would be difficult to decide which is the most interesting of these chapters, but it is safe to say that the one dealing with the American harvester abroad is one of the most inspiring industrial chapters that has ever been written for any book.

A souvenir of Alexandria, La., illustrating the many lines of endeavor there has been published by *Town Talk* of that city.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

#### How Industries Grow.

An interesting manifestation of industrial life in Mississippi was the invitation given last week by Mr. J. J. White of McComb City, Miss., at Riverside Park, New Holmesville, Miss. The invitation, through Mr. White, stood for the J. J. White Lumber Co., Liberty White Railroad Co., McComb City Electric Light & Power Co., White & Mey Brick Co., McComb City Cotton Mill and McComb Steam Laundry. It contained the following statements by Mr. White:

"I commenced manufacturing yellow-pine lumber in this county before the Civil War, and except when interrupted by service in the army, have continued through alternate periods of prosperity and adversity until this time.

"I moved to present location in 1876, and with my sawmill interests as a nucleus the above-named corporations have been made creatures of industrial life.

"We have recently installed as a feature of the Liberty White Railroad service a picnic ground near Holmesville, on the bank of the Bogue Chitto river and a beautiful location provided by nature, has been supplemented by costly improvements to make it an attractive outing resort for the people of this vicinity.

"Among the first entertainments at this park and in recognition of the fact that many faithful employees have contributed to the success of my various enterprises by their fidelity, it has seemed to me fitting to set apart a day for the management to entertain all employees at an outing, where train service, barbecue, music and entertainment will be provided for their families.

"I have many old patrons and business friends to whom I am also indebted for the measure of success I have enjoyed, and the enclosed card signifies that I count upon you among that number and hope to have yourself and family or a representative of your firm with us on that occasion, and assure you that myself and sons, constituting my official family, will do our utmost to make it an affair of real pleasure to all."

#### Gulf Coast Lumber Exporters.

The Gulf Coast Lumber Exporters' Association held a meeting at the Chamber of Commerce building and the Cawthon Hotel, Mobile, Ala., last week, the convention being called to order by Vice-President J. T. McKeon. The report of the treasurer indicates that the association is in good financial condition. Secretary Thurley presented a letter from the secretary of the Mississippi Pine Association informing him that the association had appointed a committee on the inspection of material for exportation to meet a similar committee from the Gulf Coast Lumber Exporters' Association, the appointment of which committee was requested. Other routine business was transacted and the subject of inspection was discussed from the standpoint of the shipper and the mill man. The next meeting of the association will be held in about 90 days at some point to be determined by the executive committee.

#### Alabama-West Florida Lumbermen.

The regular monthly meeting of the Alabama-West Florida Lumber Manufacturers' Association was held at the Cawthon Hotel, Mobile, Ala., last week. The meeting was called to order by Secretary J. H. Eddy of Birmingham, Ala., and presided over by Second Vice-President J. T.

Burlingame of Yellow Pine, Ala. The committee on weights and measures reported that it had discussed the subject of weighing lumber with the Southern Weighing and Inspection Bureau, and had determined that lumber at the mills should be weighed on the small scales in order to have the overcharge calculated, if any. The committee on the cost of manufacture made its report, suggesting that an official form of cost sheet be adopted. Secretary Eddy stated that, from reports received by the association, it is evident that the market has assumed a more favorable condition than at any time since last October. He said the association had reports from many mills which indicate that stocks are broken and that shipments have exceeded production by 20 to 25 per cent. during the past three or four months. The next meeting of the association will be held at Montgomery, Ala., on July 7.

#### Big Purchase of Timber Lands.

The purchase of valuable sawmill and timber properties in Alabama by Mark Miller of Poley, Ala., and W. T. Shepard of Montgomery is announced in a recent report from the latter city. The property transferred was formerly held by the Miller-Brent Lumber Co. of Poley, and consists of about 50,000 acres of yellow-pine timber lands in Covington, Crenshaw, Coffee and Pike counties, together with a modern and well-equipped sawmill of 100,000 feet daily capacity. It is understood that the purchase price approximates \$450,000.

#### National Hardwood Lumbermen.

At a meeting of the National Hardwood Lumbermen's Association at Milwaukee, Wis., last week the following officers were elected: President, O. O. Agler, Chicago, Ill.; first vice-president, F. A. Diggins, Mich.; second vice-president, F. S. Underhill, Philadelphia, Pa.; third vice-president, Orson E. Yeager, Buffalo, N. Y.; treasurer, George D. Burgess, Memphis, Tenn. The secretary will be chosen later by the board of directors. The association will meet at Detroit, Mich., next year.

#### Buys Louisiana Timber Lands.

A dispatch from Marksville, La., states that William Chalfant, Jr., of the firm of T. A. Marshall & Co., bankers, of West Chester, Pa., has purchased 104,000 acres of lands in Avoyelles parish, Louisiana. The land is said to be heavily timbered, and it is stated that the purchaser will establish several sawmills near Marksville to develop it. It is understood also that the Texas & Pacific Railway will construct tracks from its line to the plants in order to facilitate operations.

#### Lumber for Panama.

Proposals for furnishing lumber and piles to be used in construction work on the Isthmus of Panama will be received until July 7, 1908, by the general purchasing officer Isthmian Canal Commission, Washington, D. C. Send for circular No. 449.

#### Industrial Fairmont.

A most attractive industrial edition has recently been issued by the Fairmont *West Virginian* of Fairmont, W. Va., G. A. Mitchell, editor and compiler. The publication is descriptive and illustrative of the wonderful industrial, social and educational progress which Fairmont has made in recent years, and is intended to impress upon the country at large, and especially upon the citizens of West Virginia, the progress of the city, its availability and desirability as a manufacturing and industrial center, and the character of its social and home life.

## MECHANICAL

### Superheated Steam.

By E. L. PENRUDDOCKE,

Manager Birmingham (Ala.) Office Power Specialty Co., New York.

Water, when heated sufficiently, turns into saturated steam. Saturated steam, when further heated, becomes superheated steam. Steam generated from water in a boiler must be separated from the water before it can be superheated; hence a superheater is necessary. To utilize the heat from one furnace for both steam making and steam superheating the boiler and the superheater can be combined in the same furnace, but in some instances it is preferable to use a separately-fired superheater passing the steam generated in the boiler through a separately-fired unit. The superheating of steam may be described as the final step in the operation of steam in the most efficient use in driving engines of all types—compound, triple-expansion and condensing engines—or for supplying heat for such purposes as in cotton mills for heating dye-water heaters, in drying departments, or for the various chemical and cooking purposes in other industrial plants.

It has been recognized for over 50 years that superheating was advantageous in steam-engine economy, but it has only been of recent years that the construction of the superheater has advanced to the point where there are no drawbacks in its use. Another probable reason why it has not been used so much in years past as it is now was that the steam-engine construction was not suitable, but the many improvements both on steam engines and steam turbines have brought it more prominently into use. With the steam turbine this is especially true, for the success in operating turbines is largely due to having dry steam, where if steam carrying entrained moisture be admitted to the turbines it has a tendency to erode the blades and thereby to shorten its life as well as decrease its economy.

The economy derived from superheating naturally varies with the type of engine that is used. With the more economical styles of engines the economy is less, but the more wasteful the type the greater the economy, as will be readily explained in comparing the common slide-valve engine with the triple-expansion condensing engine. With the latter type there will be probably a saving of from 5 to 7 per cent., but with the former type it might even run as high as 15 per cent. saving. From a number of tests that have been made it has been demonstrated that there is a saving by the use of superheated steam ranging from 5 to 30 per cent.; especially is this true with steam pumping engines. It has also been found that engines running electrical plants are better able to live up to the duty imposed upon them and are quicker in their action, due largely to their responding to the governor action more readily.

Returning to the steam turbine, the friction of the rapidly-revolving buckets in the surrounding medium is a very important item, and it has been found that the friction is greatly reduced when the steam is superheated. The actual test shows 1.5 horse-power was necessary to run a turbine to a speed with saturated steam under a vacuum, while only .90 horse-power was used where the steam was superheated 300 degrees F. By condensing the exhaust of a steam turbine the economy is improved even to a greater extent than in a steam engine, and in consequence a good vacuum is of much importance. Superheated steam, because of its greatly-reduced density, always produces a better vacuum; a given volume of superheated steam when condensed occupies much less space than

an equal volume of saturated steam.

For ordinary conditions, however, it is not recommended to use steam at a temperature above 500 degrees F., which would correspond to a superheat of 135 degrees at 150 pounds pressure. Some benefit is to be derived from the use of a much higher degree of superheat, but this condition necessitates especial construction in regard to steam valves and pistons are rendered necessary, an amount of expense and complication not justified by the slight additional economy. Experience has amply proved that when a moderate degree of superheat is used no ill effects will be experienced in an ordinary engine with a piston valve, Corliss valve or even an ordinary slide valve using a standard mineral oil and a metallic asbestos packing.

Elimination of initial cylinder condensation is alone a very important factor to be considered in connection with superheated steam, for with the proper amount of superheated steam traps and separators may be dispensed with.

Another matter that is very important is the fact that as steam when superheated attains the form of perfect gas, it follows closely the law of perfect gases, and in the construction of steam lines these sizes may be reduced and the velocity of the steam may be increased.

There is another use for superheated steam which will prove beneficial around a large number of mines, especially the smaller ones. There are long steam lines entering the mines to convey the steam to pumps located therein; this steam, although it may have started as dry steam, is oftentimes very little better than water; consequently, the capacity of the pump is reduced and is not doing the work that it is capable of, owing to the loss of power. This most often results in its being taken out and an expensive installation by compressed air or electricity is substituted. These are very good installations, but there are plenty of instances where the mine is not large enough to really justify this expense, and in these instances the operator could obtain the desired results by attaching a superheater to his boiler, superheating the steam sufficiently to carry it to the pumps located in the mines; in this way long-existing steam lines could be used instead of being discarded. It might be deemed advisable in an installation of this kind to install a separately-fired superheater to superheat just sufficient steam passing to the pumps or fan engines, as the case may be. In some instances the writer has known where fans have been operated at a distance of 1200 feet from the boiler, which practically must be acknowledged by everyone to be very wasteful, even though fuel may be cheap at the coal mine. This is a matter that is worthy of consideration by coal operators, and I feel sure that if the installations are once made that it would fully prove to their own satisfaction the economy as well as the better work of their plant.

The live steam cooking field is a large one in which superheated steam can be used. For canning fruits and vegetables it is an ideal use.

In the distilling of turpentine or other wood waste it is very efficient, as lower pressures but the desired temperatures can be maintained in the retorts; therefore, in retorts containing wood chips the steam will permeate the mass without the tendency of packing it, which is the result when high pressures are used. Quite a number of installations of superheaters have been made in connection with this, and the demand is rapidly increasing.

In tar distillation there is another very important field for superheated steam, for in this case the steam pipes or coils can be distributed throughout the mass of tar in

the stills and the steam at a low pressure may be superheated to give the desired temperature. It is perfectly practical in many cases where steam is needed for cooking, distilling or drying to take the exhaust from the engines, pass same through superheater and distribute to desired points; in this way the boiler installation need not be so large, as the exhaust steam will take the place of additional boilers that would otherwise be necessary.

In steam plants it has been not infrequently found that by superheating the steam moderately or to about 500 degrees F. where previous to superheating there was a shortage of steam boilers, after superheating there was ample steam to run the plant, this being due to the absence of entrained moisture, the elimination of initial cylinder condensation, radiation and the better expansive qualities of the steam. Radiation, of course, is not eliminated, but with the increased velocity of the steam which is capable with superheated steam the radiation is reduced.

In Europe, especially in England, superheated steam has become so extensively used that fully 75 per cent. of the new boiler installations have been made with superheaters attached, and the day is not far distant when the same thing will be true in the United States. However, the purchaser of a superheater should carefully consider the construction; it should be accessible both for cleaning and inspection, and should have the expansion taken care of in such way that there will be no danger of the tubes pulling out; also that the tubes should have a suitable protection to guard them from the escaping gases alluded to above. Thermometers should be placed in the superheaters near the outlets to indicate the temperature of the steam, so that when it is desired to maintain a uniform temperature the attendant may have this under his observation just the same as he would a steam gauge on a boiler.

This applies very forcibly to installations of separately-fired superheaters that are installed in connection with live steam cooking or distilleries, for then the temperature is under the control of the attendant and he can maintain a uniform temperature or increase his temperature, whichever is desired, and thus produce a more uniform product.

With cotton mills, in the dyeing and drying departments, superheated steam presents rather a different phase of the question. Here it is not so much a matter of fuel consumption, but it is rather an increased output which is sought, and steam at any pressure may be superheated. Exhaust steam, even at atmospheric pressure or slightly above, may be passed through the superheater and raised in temperature to 600 or 700 degrees F. By using steam at this high temperature the drying process is considerably expedited. A plant of this sort has been in operation in one of the Eastern mills for some time; they take the exhaust steam at about five pounds pressure and heat it up to 600 degrees, and it is stated that the drying of the heavy cloth is done in about one-third less time when superheated steam is used.

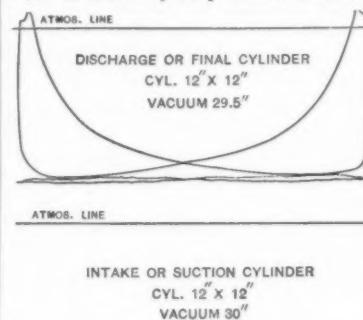
European manufacturers of cotton and woolen goods have a number of these installations, and it is evident that the system is well thought of in European countries, and there is no reason why this system or similar systems should not be adopted in the numerous cotton mills of the South. Many of the Southern cotton mills that are operated by water-power still have steam-power for heating and drying; if they can produce a greater output with the same expenditure of fuel or the same output with a decreased amount of fuel and labor is it not a profitable investment? It is worthy of

the attention of the cotton manufacturers.

There are a number of mills in the United States which have already adopted superheated steam, and these express great satisfaction from the results obtained, and they are fast following the example set by the European and Eastern manufacturers, and the day is not far distant when superheaters will be included in the specifications in all cotton-mill installations, as well as in electric-power plants.

### Blake & Knowles Vacuum Pump.

The use of the mercurial air pump has been largely used for exhausting air to the high degree required in the manufacture of incandescent lamps, laboratory use, etc., but its slowness of operation does not allow general use in the arts. Herewith is an illustration of a belt-driven vacuum pump which is especially designed for this service and is capable of producing a perfect vacuum. It is a photograph of a pump in the plant of the Westinghouse Electric lamp Co. at Watsessing, N. J. The pump is of the two-stage pattern, arranged with two 12-inch diameter vacuum cylinders, 12-inch stroke, designed for a speed of 100 revolutions per minute, and under these conditions will produce a vacuum of within .02 inch of the barometric height as registered by the mercury gauge. This pump runs continuously under these conditions. It takes suction directly from a closed receiver, which is piped off to the stands containing the incandescent lamps to be exhausted. The large capacity of the pump, together with its great efficiency, particularly adapts it for this class of service. It works strictly on the dry system, as no water is necessary or permitted to enter



BLAKE & KNOWLES VACUUM PUMP.

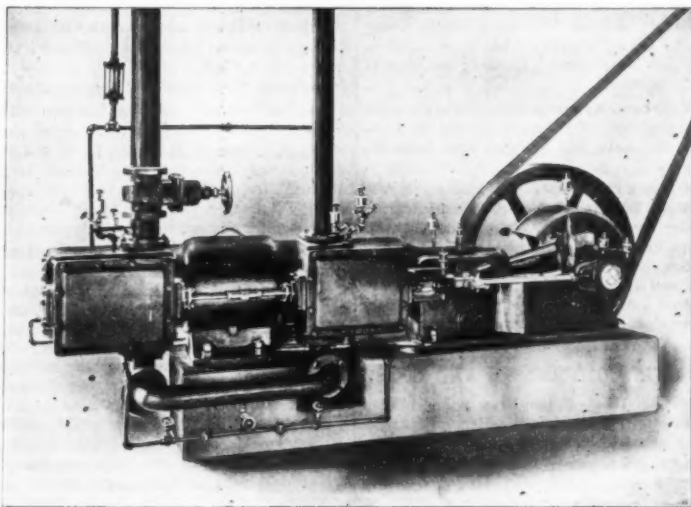
the cylinders. It is also adapted for all usages where exceedingly high vacuum is desirable, namely, in connection with the evaporative processes of sugar refineries, distilling plants, chemical and dye works, glue works, salt works, soap works, the manufacture of prepared foods, medicines, essence, glycerine, etc.; preserving processes, the production of high vacuum in central steam-condensing systems and steam-turbine work. These vacuum pumps are also built with steam cylinders for direct steam drive; also arranged with extended bases and gearing for electric motor. The vacuum cylinders are thoroughly water-jacketed. The valves are mechanically operated by eccentrics keyed to the main shaft. Experience with work where the highest possible degree of vacuum is required has shown that the correct practice is to handle the air by the means of two air cylinders—that is, in two stages, one cylinder discharging into the other. By reducing the difference in pressure between the opposite sides of the piston it is possible to take care of the leakage past the piston rings, etc., that may occur in the intake cylinder, which, however slight, seriously affects the capacity and efficiency of the pump on the higher ranges of vacuum, and in this way maintain a constant vacuum within .02 inch of the barometer.

This successful production of a machine, not difficult of management and capable of maintaining an extremely high vacuum, has revolutionized many industrial processes and has opened up new possibilities in the arts heretofore wholly out of reason. Particularly in the case of incandescent electric lamp bulb manufacture the above type of machine has proven its

special design, the arms being secured to the hub tangentially, instead of radially, the usual practice.

This eliminates the necessity of bending the T-irons through a large angle, which, in addition to weakening the wheel, offers more resistance to the flow of air.

One inlet is provided on the side opposite the motor. Being unobstructed, a



BLAKE & KNOWLES VACUUM PUMP.

value. It has simplified former methods and has made less difficult and expensive the rapid production of finished bulbs.

A further and more extended application of these pumps is in the production of high vacuum in connection with evaporative processes, etc. With every fractional part of an inch gain in the high ranges of vacuum the boiling point temperature is reduced in a much greater proportion, so that with a given apparatus the higher the vacuum the greater its capacity, and, incidentally, the greater the improvement in the quality of the product.

In the set of indicator cards taken from the two vacuum cylinders it is interesting to note the difference in the work performed by the intake or suction cylinder and that of the final cylinder. The latter cylinder does by far the majority of the work, while the intake cylinder produces just that fraction of an inch of vacuum which reduces the resultant pressure to practically absolute zero. This machine is manufactured in larger and smaller sizes suitable for various capacities, and is designed and patented by the Blake & Knowles Steam Pump Works, 115 Broadway, New York.

#### A Compound Pressure Blower.

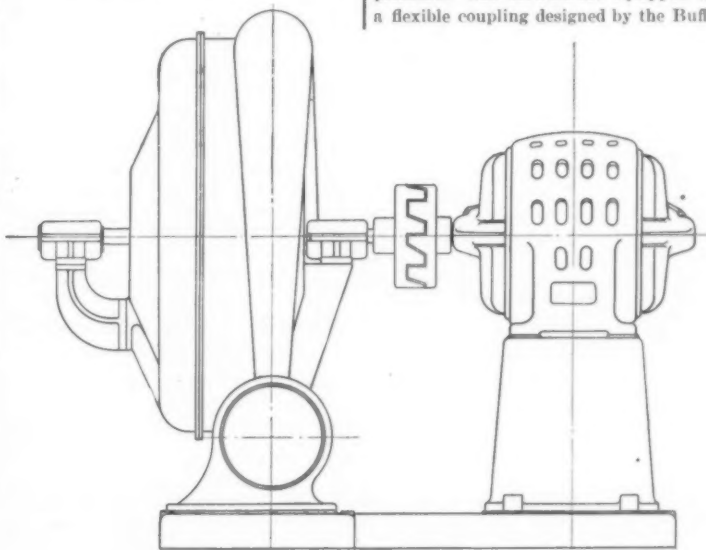
The fact that the pressure at which the air is delivered by a centrifugal fan is determined by the peripheral speed of the blast wheel has prevented manufacturers of these fans from direct connecting these larger sizes to electric motors, since the speed of the larger motor is limited.

In the past they have been obliged to use belted outfits where a pressure of over six or eight ounces was required. The belted machines require more floor space, more attention to bearings, and are also less efficient than the direct-connected outfits.

The Buffalo Forge Co., Buffalo, N. Y., has designed a compound blower which it says will deliver the air at double the pressure of the simple fan with the same diameter blast wheel when run at the same speed. This permits blowers of practical and efficient proportions to be direct connected to large motors of 50 to 75 horsepower. (See accompanying illustration.)

The blast wheels are mounted on a single shaft and encased in a cast-iron housing, built up in transverse sections, permitting the interior parts to be easily inspected or removed. The wheels are of a

smaller inlet is apparent. The air entering the fan does not strike that portion of the blade which is moving at a high velocity until the direction of the air has changed and the air itself has attained a high velocity. The curvature of the blade is such that the velocity of the air is gradually increased as it approaches the tip, at which point the velocity of the air is slightly above that of the blade. The air from the first stage is discharged into a pressure chamber about the entire circumference of the wheel, the pressure in this chamber being approximately one-half the total pressure at which the air is delivered. Here the air enters the second stage, the blast wheel of which is involute in form and so designed as to increase the area in

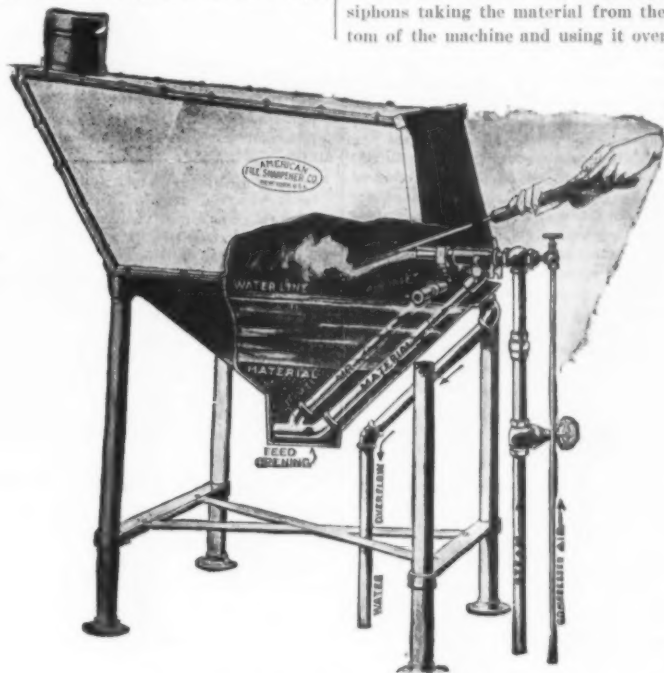


A COMPOUND PRESSURE BLOWER.

the casing directly as the increase in volume of air discharged from the blast wheel throughout a single revolution. Substantial oil-ring bearings are provided, one on each side of the housing, as shown in the line drawing above, and when the width of the blower is sufficient to require such, another bearing is located in the pressure chamber between the two stages.

A number of these fans of the larger sizes have been installed by the Lehigh Valley Railroad, Fanner Manufacturing Co., Strong, Carlisle & Hammond Company and the Indiana Steel Co. of Gary, Ind.

Two of these fans are now being constructed for the latter to supply blast to cupolas at a pressure of 16 ounces per square inch. This company was adverse to belted fans, and was about to resort to the blowers of the positive rotary type, with geared motors, when the merits of the compound direct-connected blower were presented to them. Each fan will deliver a maximum of 9500 cubic feet of air per minute at a pressure of 16 ounces per



FOR RESTORING CUTTING EDGES OF FILES.

square inch at a speed of 1420 R. P. M., being driven by a 75-horse-power General Electric form K three-phase 440-volt 25-cycle induction motor.

These blowers of the above capacity, with motor mounted on cast bedplate, occupy a floor space of only 7x5 feet, and the height is about 7 feet, which would be the same as a simple blower of this capacity delivering the air at one-half the pressure. The blowers are equipped with a flexible coupling designed by the Buffalo

ican File Sharpener Co., 206 Broadway, New York. The reshaping is effected by submitting the file to the action of a jet of steam or air laden with abrasive material in such a way as to expose the back and sloping faces of the teeth to the blast. An accompanying illustration shows a sectional view of the machine, indicating how the abrasive material is forced against the file at an angle of from 15 to 30 degrees, and also shows the inside siphons taking the material from the bottom of the machine and using it over and

over again until it is gradually cut up and carried away by the overflow outlet.

This device is claimed to bring the cutting edge of the file back to its normal condition, and to be a great saving to any factory, both in expense and in trouble with their employees, who insist on having new files frequently. The manufacturer states that 90 per cent. of the files ordinarily considered to be worn out can be made as good as new in this machine at an expense of about one-tenth the original cost, and even says that the workmen prefer the resharpened ones because of the uniformity of the teeth after having gone through this machine. The teeth are smooth on top, whereas in a new file the cut is raised unevenly. One user testifies that he is able to get 75 per cent. as much work out of a file the first time it has been sharpened as when it was new. The files can be resharpened many times, according to the work on which they are used, for brass work from five to six times with good results, and on steel and castings from three to four times.

The abrasive, known as carboflynt, is an inexpensive material, and seems to have proved the most effective material for putting an edge on a dull file in the most economical manner. Sand is not used nor the sand-blast process, nor any acid or chemical. The means for throwing the abrasive material against the teeth is either by steam or by a combination of steam and air. An inexperienced workman can easily learn to sharpen files on this machine, an expert mechanic not being required to operate it. Machine or hand-cut files, from the finest imported Swiss file to the coarse American horse rasp commonly used in this country, may be sharpened in this machine; hack saw blades can also be sharpened with good results. From 200 to 300 files is given as the daily capacity, according to the size and condition in which they are received for sharpening. The file is delivered ready for service, and as it is not heated in the process the temper is not affected.

#### The American File Sharpener.

A process for restoring the cutting edges of worn-out files is controlled by the Amer-

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## BRIDGES, CULVERTS, VIADUCTS

Baltimore, Md.—Owners Realty Co., Charles W. Hurst, president, 1201-1203 Calvert Building, Baltimore, will construct bridge 500 feet long across Northeast creek to connect Chesaco Park and Rosedale Terraces with Eastern avenue.

Brazos, Texas.—County Judge E. B. Ritchie, Palo Pinto, Texas, may be addressed for information relative to rebuilding of bridge across Brazos river. (Recently reported washed away.)

Dallas, Texas.—City will construct concrete culvert in connection with paving of Exposition avenue. Address The Mayor. (See "Road and Street Improvements.")

Denison, Texas.—Red River Bridge Co., W. B. Munson, president, will probably not rebuild wagon bridge near Denison recently reported damaged by flood.

Durant, Okla.—Bryan county will construct suspension bridge over Island Bayou, near Durant; bids will be opened July 9; J. M. Abbott, chairman Board County Commissioners. (See "Machinery Wanted.")

Konawa, Okla.—Missouri, Kansas & Texas Railway, S. B. Fisher, chief engineer, St. Louis, Mo., will rebuild bridge across Canadian river near Konawa.

Max Meadows, Va.—Wythe County Board of Supervisors, J. H. McGavock, chairman, Wytheville, Va., will award contract July 6 for construction of recently mentioned iron bridge over Reed creek, near Max Meadows; structure to be about 150 feet long and 16 or 18 feet wide. (See "Machinery Wanted.")

Montgomery, Ala.—Montgomery Traction Co. is planning erection of bridge over Central of Georgia Railway tracks.

Norfolk, Va.—City will construct reinforced concrete bridge about 100 feet long and 52 feet wide; bids will be opened June 30; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

Paducah, Ky.—Kentucky & Ohio River Improvement Railroad Co., J. J. Freundlich, Paducah, general manager, awarded contract to Forbush & Stotlar, Benton, Ill., for construction of 18 bridges, one to be 1700 feet

long, on line of railroad to be built between Paducah and Cairo, Ill.

St. Louis, Mo.—City has disposed of proposed \$5,500,000 bond issue, \$500,000 to be used for municipal bridge and purchase of land for approaches; \$400,000 for bridges and viaducts and purchase of land; \$670,000 for public parks; \$500,000 for public sewers and purchase of land; \$500,000 for Kingshighway boulevard, city's share of cost; \$2,000,000 for police, civil, criminal and other courts, police and health department headquarters and purchase of sites; \$130,000 for fire department (engine-houses and lots); \$800,000 for hospitals and purchase of sites. Address The Mayor.

Vicksburg, Miss.—Warren County Commissioners awarded contract to W. T. Young Bridge Co., Nashville, Tenn., for construction of bridge across Big Black river; W. T. Young, engineer in charge; bridge to have one 110-foot draw span, one 65-foot span, 98-foot approach and steel tube piers; contract price, \$13,000. (Mentioned in May.)

Walhalla, S. C.—Oconee county will construct iron bridge over Little River at Morgan Bridge site; bids will be opened July 7; D. F. McAllister, supervisor, Westminster, S. C.; plans by A. D. McClain, Spartanburg, S. C. (See "Machinery Wanted.")

## CANNING AND PACKING PLANTS

Albertville, Ala.—J. V. Liles, Jr., and associates will establish cannery; capacity 12,000 cans.

Ashland, Mo.—Ashland Canning Co., incorporated by J. L. Johnston, J. T. M. Johnston, S. R. Hazell and others.

Coyle, Okla.—Thompson Canning Co., will be established by F. S. and F. A. Thompson; will use erected building; capacity of plant 5000 three-pound cans peaches daily. (See "Machinery Wanted.")

Decherd, Tenn.—Decherd Canning Co., recently reported incorporated, has completed building and will operate plant with daily capacity of 10,000 three-pound cans; supplies purchased.

Idamay, Ky.—Big Hill Coal Co., successor to Louisville-Atlantic Coal Co., will increase mine loading from 100 to 1000 tons daily; president, Harry P. Jones; office of chief engineer and superintendent, W. E. Taylor, Heidelberg, Ky. (See "Machinery Wanted.")

Nixon, Texas.—Boom Glover will establish cannery.

Oklahoma City, Okla.—Detter Canning & Manufacturing Co., incorporated with \$10,000 capital stock by C. E. Detter, J. Reed and W. F. Bush.

## CLAYWORKING PLANTS

Kansas City, Mo.—Compressed Flint Brick Co. will establish plant to manufacture flint brick; A. M. Wagner, secretary and treasurer, Webb City, Mo. (See "Webb City, Mo.")

Laurens, S. C.—C. H. Mayhew of Seneca, S. C., will establish plant to manufacture hexagon black tiling.

Rich Hill, Mo.—Rich Hill Sewer Pipe Co., recently reported incorporated, will establish plant to manufacture sewer pipe, due lining, fireproofing and other clay products; capacity 1400 cars finished goods per year; will erect three-story brick buildings 96x192 and 80x80 feet, and brick boiler and engine-room 48x48 feet; other buildings frame; 16 kilns; cost of buildings \$30,000; cost of machinery \$22,000; cost of kilns \$30,000; managing officers, G. G. Milgate and J. D. Fowler. (See "Machinery Wanted.")

Webb City, Mo.—Compressed Flint Brick Co., recently reported incorporated, will establish plant with daily capacity of 10,000 finish bricks; will erect building 60x150 feet; cost of machinery, \$6000; A. M. Wagner, secretary and treasurer; plant will also be established at Kansas City, Mo.

## COAL MINES AND COKE OVENS

Bailey's Switch, Ky.—Richland Blue Gem Coal Co., incorporated with \$3000 capital stock; will improve and operate mining property of Richland Jellico Coal Co. at Bailey's Switch; J. A. Anderson, president and general manager; S. K. Anderson, secretary-treasurer, both of Bailey's Switch; H. E. Bullock, vice-president, Trosper, Ky.

Campbellsville, Ky.—Campbellsville Coal Co., incorporated by B. F. Rakestraw, B. G. Kincart and others.

Chattanooga, Tenn.—Grandview Land &

Coal Co., Robert Marshall, president and manager, awarded contract for erection of aerial incline 5100 feet in length; for conveying timber and coal; incline consisting of endless double steel cable on poles 100 feet apart; double cable track.

Holden, W. Va.—United States Coal & Oil Co., A. F. Holden, Cleveland, Ohio, president, is having surveys made in connection with new development work in contemplation at Holden.

Middlesboro, Ky.—Bell County Coal Co., incorporated with \$5000 capital stock by Fred B. Wood, John W. Williams and Ella W. Wood.

Trosper, Ky.—Trosper Coal Co. reincorporated with \$15,000 capital stock; president, J. T. Bradley, Jellico, Tenn.; vice-president, H. H. Owens, Coalport, Ky.; secretary, H. L. Biggs, Warren, Ky.; H. E. Bullock, general manager, and J. W. Owens, superintendent; has acquired and will improve plant of Bennett Jellico Coal Co.; will double output.

## COTTON COMPRESSES AND GINS

Bassfield, Miss.—Faller Bros. will establish cotton gin; 70-saw stand; huller system; capacity about 75 bales per day.

Cowpens, S. C.—Farmers' Gin Co., recently reported incorporated, will establish cotton gin with capacity of 50 bales daily; will erect buildings 62x26 feet and 40x20 feet; sheet-iron; cost \$1000; cost of machinery \$2000; plans by E. A. Tindall, president; M. A. Mosley, secretary and treasurer.

Hickman, Ky.—Farmers' Gin & Grain Co. will erect cotton gin, to cost about \$4000.

## COTTONSEED-OIL MILLS

Belzona, Miss.—Belzona Compress Co., incorporated with \$60,000 capital stock by Joseph Newburger, Memphis, Tenn.; B. C. Duncan, Grenada, Miss.; B. B. Provine, Greenwood, Miss., and others.

Cleveland, N. C.—Cleveland Oil & Fertilizer Co., recently reported incorporated, will establish plant with daily capacity of 20 tons cottonseed; president, J. M. Harrison; vice-president, C. A. Brown; secretary and treasurer, J. A. Lyerly; manager, M. C. Wood; frame and brick building will be erected; architect, Platt Iron Works, Dayton, Ohio.

Frederick, Okla.—Frederick Cotton Oil & Manufacturing Co. (recently noted as "Chickasha Cotton Oil Co.") will rebuild cotton-oil mill reported destroyed by cyclone; capacity of plant, 60 tons seed per 24 hours; T. S. Diffe, manager. (See "Machinery Wanted.")

Hico, Texas.—Collier Gin Co. incorporated with \$40,000 capital stock by D. T. Collier, J. N. Collier, H. M. Scales and C. H. C. Scales.

Longdale, Okla.—Farmers' Co-operative Gin & Mercantile Co., incorporated with \$6000 capital stock by N. Adams and others.

Samson, Ala.—Samson Oil Mill, Gin and Fertilizer Works organized; contract awarded to E. Van Winkle Gin & Machinery Co., Atlanta, Ga., for equipment of oil-mill machinery.

## ELECTRIC-LIGHT AND POWER PLANTS

Augusta, Ga.—Augusta Railway & Electric Co. will install additional machinery in power-house, for which about \$25,000 has been expended.

Beaufort, S. C.—City will vote June 30 on \$43,000 bond issue for construction of electric-light system, purchase or erection of water-works and building of town hall. Later it is proposed to ask for authority to issue additional bonds. Address The Mayor. (Recently mentioned.)

Carrollton, Ky.—City awarded contract to Samuel Hill, Jr., Cincinnati, Ohio, at \$19,300, for construction of electric-light plant.

Fairview, Okla.—City contemplates voting on bond issue to construct electric-light plant and water-works. Address The Mayor.

Georgetown, Texas.—Georgetown Water & Light Co. to expend \$25,000 in improvements, including installation of second dynamo in light plant; C. S. Hale, manager.

Paducah, Ky.—Kentucky & Ohio River Improvement Railroad Co., J. J. Freundlich of Paducah, general manager, has opened bids for construction of power and sub-stations on line of railroad to be constructed between Paducah and Cairo, Ill.; lowest bid submitted was \$36,500.

Kirksville, Mo.—Kirksville Light, Power & Ice Co., recently reported incorporated, will establish electric-light and power and ice plants; plans not announced; Charles V. Miller, president; C. J. Baxter, secretary; J. H. Moore, engineer in charge.

Lindsay, Okla.—Town will construct electric-light plant and water-works; M. A. Earl & Co., Muskogee, Okla., are engineers; Otis Snow, Town Clerk.

Louisville, Ky.—Louisville Lighting Co. will erect coal conveyor at plant to cost about \$5000.

Memphis, Texas.—Memphis Ice & Electric Co., recently reported incorporated, is installing electric-light plant to be in operation by July 1; president, J. M. Elliott; secretary and manager, George C. Walsh.

New Orleans, La.—Board of Administrators State Charity Hospital awarded contracts as follows: Muir & Fromherz, New Orleans, to erect brick power-house; Payne & Joubert, New Orleans, to furnish boilers, automatic stokers and other equipment; Metal Concrete Chimney Co., St. Louis, Mo., for chimney; total appropriation, \$26,000; contracts to be completed within three months; John Ponder, chief engineer of hospital, and E. A. Sammons, consulting engineer Board of Administrators, will supervise construction. Plant will furnish heat, light, power and electricity for hospital. (Mentioned in April.)

Newport, Ark.—People's Light, Water & Power Co., incorporated with \$25,000 capital stock by F. R. Suits, George O. Beebe and Henry Baldus.

Oxford, Miss.—University of Mississippi will award contract June 30 for building complete electric power-house and steam-heat distributing system recently mentioned; F. G. Proutt, 174 Randolph Building, Memphis, Tenn., is consulting engineer; D. M. Kimbrough, chairman building committee. (See "Machinery Wanted.")

Richmond, Va.—City Council is considering \$350,000 bond issue for electric-light and power plant. Address The Mayor.

Rising Star, Texas.—City has voted bonds for construction of water-works and light plant. Address The Mayor.

Rockport, Texas.—Rockport Ice & Light Co., R. H. Ellis, manager, has contracted with Turner & Prior of Rockport, electrical engineers, for installation of electric-light plant. (Recently incorrectly classified under "Canning and Packing Plants.")

Tyler, Texas.—Tyler Electric Co., recently reported incorporated with \$50,000 capital stock, is reorganization of Tyler Electric Light & Power Co.; president, A. E. Judge; no change in plant.

Washington, D. C.—Washington, Alexandria & Mount Vernon Railway Co., Pennsylvania avenue and 12th street N. W., will install additional turbine in power-house.

## FLOUR, FEED AND MEAL MILLS

Altus, Okla.—Altus Alfalfa Milling Co., recently reported incorporated by J. A. Walker, A. E. Nelson and others, will establish alfalfa mill at cost of \$12,000 for building and \$18,000 for machinery; will erect mill 52x191 feet; daily capacity, 100,000 pounds mixed feed from grain and alfalfa hay; Chas. A. Tappan, Oklahoma City, engineer and architect.

Hopkinsville, Ky.—Hopkinsville Milling Co., incorporated with \$200,000 capital stock by James West, W. T. Cooper and M. V. Dullin.

Jefferson, Okla.—H. J. Hackney of Wellington, Kan., is reported, purchased and will improve Jefferson mill and elevator; new machinery will be installed, capacity increased to over 250 barrels per day and alfalfa mill will be erected.

Nashville, Tenn.—E. A. Dorris & Sons have, it is reported, purchased and will improve Maize Cereal Mills, in East Nashville; new machinery will be installed and plant operated as flour mill.

St. Louis, Mo.—Annan-Burg Milling Co., incorporated with \$6000 capital stock by Roger P. Annan and James N. Wooley, Staunton, Ill.; John H. Magill, Little Rock, Ark., and others.

## FOUNDRY AND MACHINE PLANTS

Catlettsburg, Ky.—Ohio Valley Pipe & Foundry Co., incorporated with \$10,000 capital stock by W. A. Patton and W. S. Patton, Louisville, Ky., and W. W. Seymour, New York.

Charleston, W. Va.—Flour-mill Machinery.—Kanawha Wheat Scouring Machinery Co. incorporated with \$150,000 capital stock by R. G. Hubbard, S. F. Wilson, H. W. Sents and others.

Fayetteville, Tenn.—Plows.—Fayetteville Plow Works organized with \$10,000 capital stock to manufacture double shovel and cultivator invented by W. T. George; will establish plant. (See "Machinery Wanted.")

Houston, Texas.—Round-bale Presses.—Automatic Round Bale Press Co. incorporated with \$100,000 capital stock by J. A. Taft, W. D. Elliott, M. F. Kettler and others to manufacture and sell automatic round-bale presses.

Kansas City, Mo.—New Western Foundry Co. incorporated with \$10,000 capital stock by W. H. Sanford and E. M. Miller.

Nashville, Tenn.—Metal Culverts.—Tennessee Metal Culvert Co. incorporated with \$25,000 capital stock by George H. Charles, L. G. Anderson, Frank Putney and others.

Savannah, Ga.—Pipe Foundry.—Seaboard Pipe Foundry will resume operations of plant. Improvements will be made extending output to special brass castings. Machinery will be installed for casting shaft and sash weights.

Springfield, Mo.—Steel Tires.—DeHart Steel Tire Co. incorporated with \$100,000 capital stock; H. N. Phillips, Poplar Bluffs, Mo., president; M. H. DeHart, Cincinnati, Ohio, vice-president; W. H. Hansell, Springfield, treasurer and manager; will erect building and install machinery.

St. Louis, Mo.—Cotton-picking Machinery.—Vacuum-Picking Machine Co. incorporated with \$750,000 capital stock by John S. Thurman, C. V. Thurman, W. W. Conklin and others.

### GAS AND OIL DEVELOPMENTS

Austin, Texas.—Chickashaw Oil Co. incorporated with \$10,000 capital stock by R. M. Thomson, C. E. Anderson and J. K. Donnin.

Dockesburg, Ark.—Nichols Oil & Gas Co. incorporated with \$10,000 capital stock by A. C. Steel, R. A. Gilliam, W. T. Nichols and others.

Follansbee, W. Va.—Brooke Oil Co. incorporated with \$10,000 capital stock by W. J. Kirk, A. W. May, George Z. Smith and others.

Harrisville, W. Va.—Imperial Oil & Gas Products Co. incorporated with \$60,000 capital stock by P. H. Campbell, Harrisville; J. L. Mann, West Union, W. Va.; William Little, Bradford, Pa., and others.

Harrisville, W. Va.—Imperial Oil & Gas Products Co. incorporated with \$60,000 capital stock by P. H. Campbell, Harrisville; Joseph Hartman, Jr., Pittsburg, Pa.; J. L. Mann, West Union, W. Va., and others.

Houston, Texas.—Shamrock Oil Co. incorporated with \$6000 capital stock by William Malone, W. M. Rice and J. S. Rice.

Huntsville, Ala.—New York-Alabama Oil Co. awarded contract to J. O. Hefflin, Birmingham, Ala., for sinking deep well in West Huntsville.

Lake Charles, La.—Meathers Oil Co. incorporated with \$50,000 capital stock; Harry Meathers, president; Louis Danner, vice-president; Edwin A. Kremer, secretary; J. D. Cline, treasurer; J. W. Danner, general manager.

Lewis, La.—Lewis Oil Co. incorporated with \$25,000 capital stock; H. M. Lewis, president; W. P. Stiles, vice-president; L. M. Stiles, secretary and treasurer.

Mabelvale, Ark.—Hopewell Gas & Oil Co. incorporated with \$10,000 capital stock by J. E. England, Sr.; W. M. Kavanaugh, E. D. Matthews and Edward Cornish.

Marshall, Texas.—Adkins Bros., Shreveport, La., have been granted extension of franchise to supply Marshall with natural gas from Louisiana.

Shreveport, La.—Reliance Oil Co. incorporated with \$60,000 capital stock; D. C. Richardson, president; W. T. Crawford, vice-president; Andrew Querbes, secretary and treasurer.

Tulsa, Okla.—Highland Oil Co. incorporated with \$20,000 capital stock by T. O. Cremin, C. M. Armstrong and W. T. Tucker.

Tulsa, Okla.—R. E. Mooney Pipe Line Co. incorporated with \$10,000 capital stock by E. C. Ryan, Emma Ryan and R. E. Mooney.

Tulsa, Okla.—Indian Territory Illuminating Gas Co. contemplates issuance of \$1,000,000 of bonds for development of Osage field and extending mains to Bartlesville, Ochelata, Collinsville, Ramona, Tulsa and other towns along Osage border.

### ICE AND COLD-STORAGE PLANTS

Ada, Okla.—Ada Ice & Fuel Co. incorporated with \$10,000 capital stock; president,

H. D. Hamilton, and vice-president, T. G. McCrosky, both of Kansas City, Mo.; B. H. Frick, secretary-treasurer and manager; will operate 12-ton ice plant.

Barnesville, Ga.—Barnesville Milling Co. incorporated with Athol Houk as manager to manufacture and handle ice, etc.

Grand Saline, Texas.—Grand Saline Ice Co. incorporated by D. M. Jackson, Joe Rentz, J. E. Persons and others.

Kirkville, Mo.—Kirkville Light, Power & Ice Co., recently reported incorporated, will establish ice plant and electric-light and power plant. (See "Electric-Light and Power Plants.")

Paris, Tenn.—Nanta Cold Storage Co., recently noted to establish cold-storage plant, will erect three-story building; brick, etc.; first floor, three rooms, 20x20x10 feet, for egg storage, with six-foot passage; second floor, three rooms, same size as below, and one room, 20x30x10, and six-foot passage; four rooms and passage on third floor; engine and machinery room; bids desired on complete plant.

Richmond, Va.—Joseph Schlitz Brewing Co. of Milwaukee, Wis., will install cold-storage plant. (See "Miscellaneous Manufacturing Plants.")

Temple, Texas.—Hemman-Bessonne Company contemplates establishment of cold-storage plant in connection with creamery and cannery. (See "Machinery Wanted.")

### IRON AND STEEL PLANTS

Birmingham, Ala.—Iron Furnace.—B. F. Wilson and associates have leased and will operate Williamson Iron Co.'s furnace.

Ensley, Ala.—Iron Furnaces.—Tennessee Coal, Iron & Railroad Co. has, it is reported, completed, repaired and blown in furnaces Nos. 1 and 6, making four of the six main furnaces at Ensley in operation (mentioned in April to remodel furnaces Nos. 1, 2 and 3, about redoubling product, or increase of 600 tons daily, and to make other improvements). George G. Crawford, president, main offices at Birmingham, Ala.; New York office, 115 Broadway.

St. Louis, Mo.—Blast Furnace.—St. Louis Blast Furnace Co., auxiliary of DeCamp Bros. & Yule Iron, Coal & Coke Co. of St. Louis, is about to resume on larger scale operation of its furnace in South St. Louis, previously mentioned as having been blown out for relining; \$300,000 of bonds will be issued as collateral for funds for improvements; company's capital stock has been increased from \$200,000 to \$300,000.

### LUMBER-MANUFACTURING PLANTS

Bonita, Miss.—Millbrook Lumber Co. incorporated with \$25,000 capital stock by S. A. Neville, G. M. Neville and J. P. Sparling, all of Meridian, Miss.

Christiansburg, Va.—Shultz Bros. & Morgan organized by Shultz Bros., Old Colony Building, Chicago, Ill., and are constructing saw mills at Little River with daily capacity of 20,000 feet of hardwood lumber. R. H. Morgan will be in charge of plant; main office address, Christiansburg.

Fairburn, Ga.—Louisville Property Co. of Louisville, Ky., has, it is reported, purchased 3900 acres of timber land near Fairburn and will erect several large sawmills.

Foley, Ala.—Mark Miller of Foley and W. T. Shepard of Montgomery, Ala., have purchased at \$450,000 plant of Brent-Miller Lumber Co. at Foley with 50,000 acres of timber land in Covington, Crenshaw, Coffee and Pike counties, Alabama. Plant has daily capacity of 100,000 feet.

Fort McCoy, Fla.—Rentz Lumber Co. will erect mill.

Lake Charles, La.—Old River Lumber Co. incorporated with \$10,000 capital stock; J. E. Loxley, president; G. E. Loxley, vice-president; Frank Mace, secretary and treasurer.

Lumberton, Miss.—Lumberton Manufacturing Co. incorporated with \$5000 capital stock by T. L. Venable, J. W. Hinton, W. T. Thornhill and others.

Mena, Ark.—Watkins Lumber Co. incorporated with \$25,000 capital stock by W. E. Watkins, D. M. Atkins and J. T. Monroe.

New Braunfels, Texas.—Henne Lumber Co. incorporated with \$50,000 capital stock by Louis, Adolf and H. G. Henne.

Pensacola, Fla.—Southern States Lumber Co., F. F. Bingham, secretary, will vote June 26 on issuance of \$500,000 of bonds for building new mills, railroad extensions and other improvements.

San Antonio, Texas.—Thomas T. and Chas. M. Campbell of Temple, Texas, are interested in establishment of \$200,000 lumber plant at San Antonio.

Ulmers, S. C.—Harter Lumber Co. incorporated by E. B. Norton, Allen J. Harter and Lou E. Schucker.

Waynesville, N. C.—New Savannah Flume Co. incorporated with \$150,000 capital stock by J. O. Bowen, V. F. Brown and others.

### MINING

Carthage, Mo.—Zinc and Lead.—C. N. Williams & Co. installing zinc and lead mill mentioned in May; building not decided; cost of machinery \$3000; managing officers, R. H. Corbin and C. W. Williams. (See "Machinery Wanted.")

Carthage, Mo.—I. P. Mining & Royalty Co. incorporated with \$50,000 capital stock by J. B. Gibson, T. V. Grieb, S. C. Boggess and others.

Catawba, N. C.—B. V. Hedrick, recently noted to develop gold mines near Catawba, will be manager of Peach Tree Mining Co., to be incorporated with \$150,000 capital stock. Company owns and will develop several thousand acres of land; mining machinery has been installed.

Harper's Ferry, W. Va.—Onyx and Black Marble.—United States Onyx Co., recently reported incorporated by T. J. E. Yocum and others, all of Carlisle, Pa., has not yet elected officers; company contemplates early operation of five quarries in Virginia and West Virginia; Mr. Yocum will probably be president and general manager.

Hohenwald, Tenn.—Cement and Iron.—C. D. Lovelass, president Hohenwald Bank & Trust Co., proposes formation of company to mine cement and iron ore.

Indio (not a postoffice), Ala.—Iron.—De Sota Coal Mining & Development Co. (office, 631 First National Bank Building, Birmingham, Ala.), recently noted to issue bonds for improvements, will erect 50 dwellings and new shaft and tipples for development of Black Creek coal seam; cost of buildings, \$20,000; plans by company; cost of machinery, \$30,000; Wm. Perry, Birmingham, engineer in charge; B. C. Stevens, president.

Joplin, Mo.—Big Fly Mining Co. incorporated with \$50,000 capital stock by C. S. Leferts, T. W. Hill, M. B. Laurence and others.

Littleton, W. Va.—Stone.—Connelly Stone Co., recently noted to establish stone quarry, installed machinery at cost of \$25,000; president, J. A. Connelly; secretary, B. A. Pyles; general manager, B. F. Connelly; Hugh Hamilton, engineer; C. H. Miller, architect; product, bridge ashlar and brown and blue sandstone; daily capacity 20 cars.

Macon, Ga.—Kaolin, Bauxite, etc.—McIntyre Kaolin Co. incorporated with \$12,500 capital stock by W. S. Deidrich of Bibb county and I. E. Burkett of Twiggs county to operate kaolin, bauxite and other mines in Bibb county.

Muskogee, Okla.—Lawrence Drilling Co. incorporated with \$10,000 capital stock by G. W. Grove, E. Grove and Chris Lawrence.

St. Joseph, Mo.—Sand.—Contractors' Sand Co. incorporated by William Land, James W. Nation, B. W. Robinson and others.

St. Louis, Mo.—R. H. Beach Mining Co. incorporated with \$50,000 capital stock by George H. Tontrup, Thomas G. Harkins, Walter B. Woodward and others.

St. Louis, Mo.—Iron.—Griffith Iron Mining Co. incorporated with \$6000 capital stock by W. B. Cowen, N. B. Fauntleroy of St. Louis and B. M. Griffith of Steelville, Mo.

Stony Point, N. C.—Asbestos.—G. B. Halyburton will develop asbestos deposits. (See "Machinery Wanted.")

Willard, Ky.—Diamonds.—Kentucky Transval Diamond Mining Co. writes that it has made an agreement with Thomas Draper, 5 Windermere avenue, London, N. W., England, to reorganize company and develop properties on a large scale with English capital, and within 90 days from May 28 experts will select development sites and arrange for installation of machinery to wash and treat 500 loads or cubic yards daily. (Report of last week not correct.)

### MISCELLANEOUS CONSTRUCTION WORK

Arkadelphia, Ark.—Drainage.—Terre Noir Drainage district has had preliminary surveys completed for drainage in Clark county, making about 16,000 acres of land available for cultivation at estimated cost of \$106,000; present course of creek is 54 miles, but when straightened will be 28 miles; 135 cut-offs will be made and 16 1/3 miles of new channel will be required; at head channel is to be 20 feet wide; at mouth 45 feet wide and 10 feet deep. Address County Commissioners.

Beaumont, Texas.—Docks and Wharves.—City is considering issuance of bonds for

construction of docks and wharves. Address The Mayor.

Beaumont, Texas.—Drainage.—Willowmarsh Drainage District voted June 15 on \$50,000 drainage-improvement bonds. Address Jefferson County Commissioners.

Bledsoe, Ark.—Levee Work.—Contract will be awarded July 3 for construction of about 110,000 cubic yards of levee-enlargement work, about two miles in length, near Bledsoe; W. B. Miller, president Levee Board, West Memphis, Ark., postoffice, Memphis, Tenn.; B. G. Covington, chief engineer, 168 Randolph Building, Memphis, Tenn. (See "Machinery Wanted.")

Fort Screven, Ga.—Seawall and Jetties.—Contract will be awarded June 24 for constructing reinforced concrete seawall and riprap jetties at Fort Screven; Joseph T. Davidson, Quartermaster, Fort Moultrie, S. C. (See "Machinery Wanted.")

Kansas City, Mo.—Lake.—W. H. White of Kansas City has contract to grade and construct dam for lake and lagoon in Swope Park; work will require removal of about 6000 square yards of earth at cost of approximately \$7000. It is proposed to build bath and bathhouse on west bank of lagoon.

New Orleans, La.—Land Reclamation.—Oakdale Improvement Co. organized with \$230,000 capital stock by W. T. Jay, William Winans Wall, A. M. Halliday, T. J. Kernan, probably all of New Orleans, and L. H. Marrero, Sheriff of Jefferson parish, Gretna, La.; has taken over Verret Canal & Land Co.'s tracts in vicinity of Algiers, comprising about 3780 acres, valued at about \$220,000.

New Orleans, La.—Land Reclamation.—Phillips Land Co., recently reported incorporated with \$300,000 capital stock by C. W. Buckley, J. D. Weaver and C. A. Phillips, all of Chicago, purchased 40,000 acres wet prairie lands near New Orleans; plans for reclamation not announced.

Savannah, Ga.—Jetty Work.—Roderick Ross, Jacksonville, Fla., has contract at \$2.47 per ton, or aggregate of \$74,100, for raising and repairing south jetty in Cumberland sound at entrance to Fernandina harbor; will require about 30,000 tons of stone. (Mentioned in May.)

Tampa, Fla.—Dredging and Bulkhead.—Tampa Northern Railroad will probably award contract to the Atlantic, Gulf & Pacific Co., New York, N. Y., for dredging the bay at Hooker's Point and building bulkhead; total cost of improvements to be made, about \$100,000. (Company was mentioned in March under "Railway Shops, Terminals, Roundhouses, etc." to provide terminal facilities at Hooker's Point); W. B. Denham of Tampa is general manager.

Virginia.—Work is about to begin on proposed improvements to channel of Rappahannock river, for which Bamer Hydraulic Dredging Co., Camden, N. J., has contract; appropriation, \$77,500.

### MISCELLANEOUS ENTERPRISES

Annapolis, Md.—Suburban Development.—Magothy River Suburban Development Co., recently incorporated with capital stock of \$250,000, will develop as suburb about 225 acres of land near Jones Station on Magothy river. Thomas Fell of Annapolis is president. S. P. Speers, 207 Law Building, Baltimore, Md., is general manager.

Appalachia, Va.—Hardware.—Appalachia Hardware Co. incorporated with \$10,000 capital stock; F. P. Hurt, Norton, Va., president; M. D. Richmond, vice-president; J. W. Gunter, secretary; both of Appalachia.

Atlanta, Ga.—Garbage Crematories.—Resolution will be introduced in Council recommending \$100,000 of \$500,000 sewer bond issue to be set aside for construction of two or more crematories. Address The Mayor.

Baltimore, Md.—Land Improvement.—Creston Park Land Co. incorporated; Edward R. Jones, treasurer; Arthur E. Jones, superintendent; Joseph T. Chism, manager; to develop land as suburb on Maryland Electric Railway Co.'s line near Shipley's Station; offices, Carroll Building, Baltimore.

Baltimore, Md.—Automobiles.—Bridge Garage Co. incorporated with \$10,000 capital stock by Frank W. Wagner of F. W. Wagner Company, 25 West Saratoga street; Sumner A. Parker of Baltimore Bolt & Iron Co., 361-365 North street, and others.

Baltimore, Md.—Contracting.—Dupont Building Co. incorporated with \$5000 capital stock by Adolph Meyer, 4215 York road; Jacob Noll and Louis Lambrecht.

Baltimore, Md.—Land Improvement.—Harry Gilbert, 301 St. Paul street, has purchased site fronting 1500 feet on Garrison avenue and 1100 feet on Liberty road which he will improve with sewerage system, macadamized roads and building lots; cost of installing

sewerage system and beautifying ground will be about \$50,000; new development to be known as Lenox. Langdon & Gittings, landscape architects, of Boston and Baltimore, have contract for laying off property.

Blackwell, Okla.—Grain.—Beutke Bros. Grain Co. incorporated with \$15,000 capital stock by E. L. Beutke, J. S. Stoker and T. B. Herrick.

Catlettsburg, Ky.—Wellman Motor Car Co. incorporated with \$5000 capital stock by H. F. Wellman, W. B. Seaton and J. W. Mayo.

Charlotte, N. C.—Land Improvement.—Vance Place Improvement Co. incorporated with \$50,000 capital stock by Luke Seawell, James R. Alexander, J. D. Ford and others.

Charlottesville, Va.—College Height Land Co. incorporated with \$25,000 capital stock; H. M. Lewis, president; D. Harmon, vice-president; A. D. Payne, secretary and treasurer.

Dallas, Texas.—Machinery.—John Williams Taylor Company incorporated with \$50,000 capital stock by J. W. Taylor, J. M. Thomas and L. M. Yesner.

Fort Worth, Texas.—Grain Elevator.—Fort Worth Elevator Co. incorporated with \$75,000 capital stock by Bert K. Smith, J. G. Smith, J. A. Simons, Jr., and F. H. Ingraham.

High Point, N. C.—Abattoir.—R. W. Gray contemplates establishment of abattoir; building will be 24x30 feet; concrete floors; trackage from one department to the other; cooling-rooms screened with fine wire.

Houston, Texas.—Land Improvement.—Satsuma Land & Loan Co. incorporated with \$30,000 capital stock by E. O. Lapham, W. A. Fraser, J. A. Dolen and others, all of Chicago, Ill.

Independence, Ky.—Contracting.—Steel Fireproof Construction Co. incorporated with \$5000 capital stock by Henry R. Myers, James M. Rude and E. S. Lee.

Joplin, Mo.—Automobiles.—Century Automobile Co. incorporated with \$10,000 capital stock by Frank M. Say, Edward P. Rhodes, Frank A. Holden and others.

Kansas City, Mo.—Land Improvement.—Fairmount Park Co. incorporated with \$30,000 capital stock by W. F. Smith, Nellie Smith, Charles B. Adams and others.

Kingfisher, Okla.—Printing.—Midget Printing Co. incorporated with \$5000 capital stock by W. E. Miller, Gertrude H. Miller and M. D. Coates.

Knoxville, Tenn.—Publishing.—Industrious Hen Co. incorporated with \$12,000 capital stock by S. B. Newman, L. B. Audigier, John T. Oates and others. Mr. Audigier is secretary-treasurer.

Lacrosse, Va.—Land Improvement.—Lacrosse Development Co. incorporated with \$10,000 capital stock; W. W. Meredith, Netta, Va., president; L. H. Raney, Lawrenceville, Va., vice-president; W. W. Wilkinson, Lacrosse, secretary and treasurer.

Lawton, Okla.—Contracting.—Lawton Asphalt & Improvement Co. incorporated with J. M. Powers, M. A. Nelson and H. G. Southard.

Louisville, Ky.—Machinery, etc.—W. H. Neill Company incorporated with \$50,000 capital stock by W. H. Neill, C. C. Anderson and Charles L. V. Frank to deal in machine tools and mill supplies.

Memphis, Texas.—Hardware.—Thompson Brothers Hardware Co. incorporated with \$25,000 capital stock by George M. W. S. T. J. and E. P. Thompson.

Memphis, Tenn.—Contracting.—Clark Concrete Construction Co. incorporated with \$5000 capital stock by J. C. Clark, J. O. Clark, E. E. Law and others.

New Orleans, La.—Furnace Appliances.—Southern Furnace Appliance Co., recently reported incorporated, will not manufacture, but will market (in Louisiana, Mississippi, Alabama, Georgia, Tennessee and Kentucky) Swift's fire-door fuel heater made by Swift Fuel Co., 903 Security Building, Chicago, Ill. Southern Company's officers are: President, Geo. F. Jenkins, 903 Security Building, Chicago; vice-president and treasurer, O. M. Dunn, Union Station, New Orleans; secretary, Seely Dunn, 303 Cora Building, New Orleans, La.

New Orleans, La.—Contracting.—City Contracting Co. incorporated with \$10,000 capital stock by S. W. Bryan, president; D. E. Roach, vice-president; John Dymond, Jr., treasurer.

Olustee, Okla.—Townsite.—Oklahoma & Texas Townsite Co. incorporated with \$10,000 capital stock by H. J. Hooker, Olustee; Kenneth M. Wishart, St. Louis, Mo., and John F. Scott, Carthage, Ill.

Owensboro, Ky.—Grain Elevators.—Henry Rothschild, J. T. Griffith and others have had plans prepared by A. Killian, Owensboro, for grain elevator; six stories, 40x110 feet; capacity, 75,000 bushels; cost \$15,000.

Pikesville, Ky.—Contracting.—Pike Building & Constructing Co. incorporated with \$5000 capital stock by J. H. Harris, R. C. Booth, O. E. Burns and others.

Rock Hill, S. C.—Laundry.—Rock Hill Steam Laundry, M. B. Edwards, proprietor, Box 155, will rebuild steam laundry recently burned; will need machinery. (See "Machinery Wanted.")

San Antonio, Texas.—Printing.—Wood-Brownlee Printing Co. incorporated with \$10,000 capital stock by J. R. Wood, J. A. Brownlee and C. V. Birkhead.

Sanford, N. C.—Publishing.—Lee County Publishing Co. incorporated with \$10,000 capital stock by Lem H. Gibbons, W. H. Weatherspoon and A. C. Holloway.

Shreveport, La.—Hardware.—Williams Hardware Co. incorporated with \$10,000 capital stock by W. H. Thompson, H. H. Bain and H. B. Williams.

Smithton, P. O. El Reno, Okla.—Grain Elevator.—Canadian Mill & Elevator Co. has not decided as to rebuilding of grain elevator recently reported burned.

St. Louis, Mo.—Supply and Building.—Stewart Supply Co. incorporated with \$50,000 capital stock; Oliver Shiras, vice-president and general manager. (See "Machinery Wanted.")

Suffolk, Va.—Land Improvement.—Jeffrey Land Co. incorporated with \$25,000 capital stock; C. J. Luke, president; P. L. Rawles, vice-president; L. W. Jeffrey, secretary and treasurer.

Tulsa, Okla.—Fuel.—Oklahoma Fuel Co. incorporated with \$10,000 capital stock by E. R. Kemp and Roger S. Sherman of Tulsa, and W. B. Stone of Kiefer, Okla.

#### MISCELLANEOUS MANUFACTURING PLANTS

Anderson, S. C.—Gas Plant.—Anderson Gas Co. (not yet organized) will establish and operate gas works recently noted as to be installed by W. H. Harrison, Jr., Biloxi, Miss.; brick building, 46x51 feet, will be erected at cost of \$5000; entire plant, including building, apparatus and street mains, to be constructed by Mr. Harrison; cost of completed plant, about \$100,000.

Ashland, Ky.—Waterproofing.—Alaska Waterproofing Co. has increased capital stock from \$2500 to \$10,000; T. J. Shant, manager; no machinery needed.

Atlanta, Ga.—Skirts, Suits, etc.—P. M. Essig of Atlanta and L. B. Frye of Cuthbert, Ga., have purchased Atlanta Skirt Manufacturing Co. for \$15,000; will invest additional \$10,000, and later plant, now containing 7500 square feet of floor space, will be enlarged.

Atlanta, Ga.—Fertilizer.—Chickamauga Fertilizer Works incorporated with \$120,000 capital stock by Augustus D. Adair, George W. McCarty, J. D. McCarty and Augustus Adair, Jr.

Baltimore, Md.—Pianos.—American Piano Co., incorporated recently with capital stock of \$12,000,000, includes William Knabe & Co. of Baltimore, Chickering & Sons of Boston, Mass., and Foster-Armstrong Company of Rochester, N. Y. Officers will be: President, Ernest J. Knabe, Jr.; vice-presidents, George C. Foster, Charles H. Eddy and William B. Armstrong; treasurer, George Eaton. Knabe & Co.'s plant will be increased in capacity from 3200 to 3900 pianos annually; offices, Park avenue and Fayette street.

Benwood, W. Va.—Railway Safety Appliances.—Pierce Safety Appliance Co. incorporated with \$500,000 capital stock by Franklin A. Pierce and Earl A. Lenkard of Wheeling, W. Va.; William McSwain, Moundsville, W. Va., and others.

Birmingham, Ala.—Paint.—Ben and Dave Meyer have purchased Rankin-Tuck Paint Co. and, it is reported, will enlarge and improve plant.

Brewster County, Texas.—Wax.—Walter Willett of San Antonio, Texas, has purchased right to remove candallia plant from unsold school lands in Brewster and Terrell counties, and will utilize in the manufacture of wax.

Brunswick, Ga.—Lace Leather.—Brunswick System Co. has purchased process for Drake's lace leather, and is now manufacturing.

Charleston, W. Va.—Wrenches.—Eugene Childs of Boston, Mass., proposes organization of company to build wrench factory, as reported recently; capital stock will probably be \$300,000. Nothing more definite can be announced at present.

Chattanooga, Tenn.—Lime.—Southern White Lime Co. incorporated with \$50,000 capital stock by James J. Lynch, C. S. Littleton, Sydney B. Wright and others.

Chattanooga, Tenn.—Ice Cream, etc.—Farmers' Building Co. incorporated with

\$30,000 capital stock by J. A. Reagan, W. S. Lenoir, J. A. Miller and others to erect building to be occupied by East Tennessee Dairy Co. and used as dairy and ice-cream factory.

Columbia, Tenn.—Fertilizers.—J. H. Carpenter and associates will incorporate company to establish plant for manufacture of phosphate-rock fertilizers.

Dallas, Texas.—Ice Cream.—James A. Cressey will establish ice-cream factory.

Denton, Texas.—Wire Fence.—Denton Woven Wire Fence Co., G. H. Blewett, president, recently reported incorporated, will continue manufacture of woven-wire fence.

Eureka, Mo.—Brass Manufacturing.—Occidental Metal & Manufacturing Co., main offices Kansas City, Mo., has leased 213 acres of land at Eureka and will establish plant for manufacturing brass articles.

Franklin, La.—Sugar.—Yokely Sugar Co., John D. Bell, president, recently reported incorporated, will establish plant to manufacture sugar. Galvanized building, 50x100 feet, will be erected at cost of about \$10,000; cost of machinery \$30,000; daily capacity 400 to 500 tons sugar; architect, M. Morris; engineer, C. A. Peterson; materials and machinery purchased.

Galveston, Texas.—Shipyard.—J. L. Bludworth has leased site 400x1000 feet and will erect and equip shipbuilding and repairing yard and marine ways.

Hampton, Va.—Gas Works.—Public Service Corporation of Virginia (Sidney J. Dudley and Walter Whetstone, receivers) will extend and improve gas-lighting plant recently noted; cost \$6000; material ordered; F. L. Marshall, Hampton, engineer in charge.

Hapeville, Ga.—Fertilizers.—Germofert Manufacturing Co., W. B. Chisolm, president, Charleston, S. C., awarded contract to I. F. Lanier, 116 Nassau street, Charleston, S. C., to erect buildings for fertilizer factory; company reported in May as purchasing 20 acres of land on which to establish \$200,000 plant; branch office in Empire Building, Atlanta, Ga.

Herndon, Va.—Disinfectants.—Aromaform Co. incorporated with \$100,000 capital stock; W. G. Orr, president; E. D. Orr, vice-president; E. O. Cook, secretary and treasurer, all of Laurel, Md.

Houston, Texas.—Pure Food.—A. F. Spawn is promoting the establishment of pure-food factory.

Jacksonville, Fla.—Distillery.—Sigo Myers, Savannah, Ga., recently noted to contemplate establishment of blending, rectifying and bottling plant at Jacksonville, has located at Louisville, Ky.

Jefferson City, Mo.—Stays.—Economy Stay Co. incorporated with \$6000 capital stock by George C. Parker, Charles Pearce, Arthur Surridge and others.

Kanawha County, W. Va.—Lampblack.—Eastern Carbon Black Co. of 155 Pearl street, Boston, Mass., incorporated with \$50,000 capital stock by George H. Morrill, Jr., Boston, Mass.; Robert B. Dresser, Southbridge, Mass.; A. R. Graustein, Cambridge, Mass., and Roger Ernst, Jamaica Plain, Mass., to manufacture lampblack and other by-products from natural gas in Kanawha county.

Kansas City, Mo.—Loose-leaf Books.—Irving Pitt Manufacturing Co., J. B. Irving, president, is having plans prepared by Shepard & Farrar, Minor Building, Kansas City, for factory building; three stories, 100x82 feet; cost \$40,000. (Mentioned in May.)

Key West, Fla.—Marine Railway.—Bureau of Yards and Docks, Navy Department, Washington, D. C., has had plans prepared for construction of marine railway at Naval Station, Key West, Fla.; 633 feet long, with two lines of rails, and stringers 12 feet apart resting on pile foundation; cradle will be about 162 feet long and travel on rollers over inclined track; hauling out machinery and house to cover same are included; cost about \$18,500.

Knoxville, Tenn.—Southern Manufacturing Co. incorporated with \$10,000 capital stock by Robert Vestal, James P. Vestal, D. N. Boles and others.

Louisville, Ky.—Chemicals.—Southern Chemical Co. incorporated with \$5000 capital stock by Edward Cohn, George Hise, W. P. Buzzliard and others.

Louisville, Ky.—Distillery.—Sigo Myers, Savannah, Ga., has established blending, rectifying and bottling plant at 228 Second street.

Louisville, Ky.—Chemicals.—Non-explosive Chemical Co. incorporated by Percy Sternau, Nat Hoengig, Louis Sternau and H. M. Bindewald.

Louisville, Ky.—Paper.—Diem & Wing Paper Co. incorporated with \$10,000 capital stock by Albert Diem, John Flake and William Roemler.

Memphis, Tenn.—Ginning & Sawmill Equipment.—Memphis Blow Pipe Co. incorporated with \$5000 capital stock by Simon Matthews, H. T. Horn, E. R. Odle and others.

Mexia, Texas.—Creamery.—Mexia Creamery Co. will establish creamery recently noted promoted by Young Men's Industrial Club; will use erected building; cost of machinery \$1500; Smith & White, managers; Blake Smith, secretary and treasurer.

Nashville, Tenn.—Pianos.—Freeman Piano Manufacturing Co. organized with A. P. Freeman, superintendent. Factory, which will contain about 5000 square feet of floor space, will be equipped with machinery for manufacture of high-grade pianos.

New Cumberland, W. Va.—Porcelain.—Superior Porcelain Co. incorporated with \$35,000 capital stock by John A. Campbell, C. S. Bradley, George W. McNeil and others.

New Orleans, La.—Bakery.—Jacob Wambsons will rebuild bakery reported burned; loss about \$12,000.

New Orleans, La.—Rice Mill.—Empire Rice Mill Co. awarded contract to James A. Petty, New Orleans, to erect \$25,000 rice mill building. (Mentioned in April.)

Oklahoma City, Okla.—Tanneyhill Manufacturing Co. incorporated with \$25,000 capital stock by C. P. Tanneyhill, C. F. Mason and A. O. Lossee.

Opelika, Ala.—Chemicals.—Virginia-Carolina Chemical Co. will, it is reported, expend \$15,000 in repairing and enlarging plant; main offices, Richmond, Va.

Parkersburg, W. Va.—National Builders' Supply Co. incorporated with \$50,000 capital stock by S. T. Mallory, S. H. Lowther, T. R. Cowell and others; has merged National Plaster Co. and Artificial Stone Co., and will manufacture stone blocks, brick, plaster, etc.

Petersburg, Va.—Peanut Factory.—Columbian Peanut Co., Norfolk, Va., will erect peanut factory to cost about \$20,000, work to begin within 10 days.

Richmond, Va.—Brewery.—Joseph Schlitz Brewing Co., Milwaukee, Wis., will establish brewery in Richmond; building will be 150x300 feet; two stories; first floor will contain bottling department and cold storage; second floor, offices; stable will be connected with building in rear, with ample trackage for loading and unloading cars.

Shelbyville, Tenn.—Walden-Braxton Manufacturing Co. incorporated with \$10,000 capital stock by Corbin Braxton, J. E. Walden, Fred Stallings and others.

Shepherdsville, Ky.—Creamery.—Salt River Creamery Co. incorporated with \$5500 capital stock; daily capacity about 150 pounds of butter; cost of plant about \$5000. E. Miller is president and Conrad Maraman secretary.

St. Augustine, Fla.—Cigars.—Antonio Martinez and Augustine Solla will establish cigar factory.

St. Louis, Mo.—Medicines.—Rupert Wells Radol Co. incorporated with \$50,000 capital stock by William F. Bohn, James C. Hogle, Dennis R. Dupuis and others.

St. Louis, Mo.—Store and Office Fixtures.—Staudte & Reuckoldt Manufacturing Co. awarded contract to Benjamin Mayer, St. Louis, for mason work on three-story factory building; plans by A. F. Haessler, 4415 North Market street, St. Louis.

St. Louis, Mo.—Drugs.—American Drug & Chemical Co. incorporated with \$300,000 capital stock by F. Robert Boyd, E. Horace Johnson, Ben L. Dorsey and Robert B. Pender.

Sugarland, Texas.—Sugar.—Texas Sugarland Co. incorporated with \$321,000 capital stock by W. T. Eldridge, Jonathan Lane, E. H. Coffin and others.

Tampa, Fla.—Cigars.—H. S. Giddens will receive contract to erect \$4000 frame cigar factory.

Vinita, Okla.—Bottling Plant.—Vinita Bottling Works incorporated by J. S. Smith, George Coney and M. B. Smith.

Woodbury, Tenn.—Paint.—G. W. Ritchie & Co. are promoters of paint factory established at Hollow Springs.

#### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Addis (not a postoffice), La.—Texas & Pacific Railway is having plans prepared by its engineers for building town of Addis, which will be mechanical headquarters for Louisiana of company's lines to Ferriday and Shreveport, La. It is reported that about \$500,000 will be expended in improvements, including shops, 40-stall roundhouse, car yards, office buildings, residences for employees, streets, etc.; B. S. Wathen, Dallas, Texas, chief engineer.

Macon, Ga.—Central of Georgia Railway Co. has no plans for completion of its new shops, previously detailed; car-repair plant has been completed. J. F. Hanson is president.

### ROAD AND STREET IMPROVEMENTS

Annapolis, Md.—Anne Arundel county will improve public highway through Brooklyn, known as Light-street road No. 2; work includes curbing and paving with vitrified brick of about one-third of a mile; bids will be received until June 23; W. W. Webb, clerk. (See "Machinery Wanted.")

Atlanta, Ga.—Street committee will recommend that Finley & White of Atlanta be awarded contract at \$3.20 per square yard for laying wooden blocks on Forsyth and Alabama streets, about 3300 square yards; W. J. Campbell, City Clerk; R. M. Clayton, City Engineer. (Recently mentioned.)

Baltimore, Md.—Berghaus & Moffitt, 200 Pine street, Hagerstown, Pa., are lowest bidders at \$39,087 for construction of 22,686 square yards of from six to eight-inch macadam pavement; W. W. Crosby, chief engineer.

Baltimore, Md.—City awarded contract to General Paving & Contracting Co. (formerly Maryland Pavement Co.), 6 East Lexington street, Baltimore, for paving 30th street from Charles to St. Paul street with sheet asphalt at \$1.85 per square yard; to Warren Bros. Company of Boston, Mass., James E. Trott, local representative, 411 American Building, Baltimore, for paving North avenue from Payson to 12th street with bitulithic at \$136,909.52; latter will require 46,371 square yards of paving and 15,000 cubic yards of grading. (Recently mentioned.)

Baltimore, Md.—Baltimore (Md.) Board of Awards will award contract June 24 to grade, curb, gutter and pave with granite blocks Butcher's lane from North avenue to Pennsylvania avenue, and for grading, paving and curbing with bituminous concrete pavement 24th street from Maryland avenue to Charles street; James H. Smith, president Commissioners for Opening Streets, Hoen Building. (See "Machinery Wanted.")

Baltimore, Md.—Board of Public Improvements adopted ordinance for paving Carey street between Lexington street and Columbia avenue with Belgian blocks; appropriation \$50,000; Benjamin T. Fendall, City Engineer, president of Board.

Catlettsburg, Ky.—City will pave Webster, Race, Mound and Valley streets and Oakland avenue with brick or bitulithic and lay combined guttering and curbing; R. A. Field, Mayor.

Charleston, S. C.—City is planning to improve streets at total cost of \$89,077, of which \$65,077 will be paid by city. Address The Mayor.

Chattanooga, Tenn.—Hamilton county awarded contract to American Concrete & Construction Co., James Building, Chattanooga, for laying of 1760 square yards cement walk around courthouse block and county jail; amount, \$1742.40; S. M. Walker, County Judge.

Chattanooga, Tenn.—City will pave with vitrified brick Pine, Poplar, Hotel, Stanton and other streets; contract will be let June 23; H. F. Van Dusen, chairman Board of Public Works. (See "Machinery Wanted.")

Clinton, Tenn.—Contract will be awarded July 3 for construction of about 38 miles of road in Anderson county and about \$5000 worth of work in city—grading and macadamizing; J. K. P. Wallace, chairman of commission. (See "Machinery Wanted.")

Dallas, Texas.—City Council has approved contract with Texas Bitulithic Co. of Dallas for paving about 16,000 yards on Exposition avenue with bitulithic on concrete foundation; total cost about \$50,000. In connection with paving, city will construct storm sewer from Commerce street to creek at Fair Grounds and build concrete culvert across creek.

Fayetteville, N. C.—City has appointed committee to receive bids for street paving, for which \$90,000 bonds were reported voted; will also extend paving of sidewalks on upper Main street. Address The Mayor.

Florence, Ala.—City will receive bids until July 6 for rebuilding about one mile of Wood avenue; combination slag and chert; cement curb and gutters; Jacob Stein, Florence, engineer in charge. (Recently mentioned.)

Franklin, La.—City awarded contract to B. Germler, Morgan City, La., at 22 cents per square foot for about 4345 square feet of sidewalk paving; John C. Lewis, Mayor. (Recently mentioned.)

Goldsboro, N. C.—City awarded contract to Atlantic Bitulithic Co., Mutual Building,

Richmond, Va., for laying bitulithic pavements.

Hagerstown, Md.—Washington county will construct reinforced concrete bridge across Antietam creek at Hartle's Fording, near Lettersburg; bids will be opened June 30; John E. Wagaman, clerk. (See "Machinery Wanted.")

Hopkinsville, Ky.—City is improving streets and sewers at cost of about \$12,000; Chas. M. Meacham, Mayor.

Jonesville, Va.—Horneck Construction Co. (probably of Richmond, Va.) has contract. It is reported, to construct five and one-half miles of road from Jonesville to Ben Hur at \$280 per mile; convict labor will be used; work will be under supervision of State Highway Commissioner.

Lynchburg, Va.—City will construct 7100 square yards granolithic sidewalks, requiring 1000 cubic yards excavation. Bids will be opened June 20; H. L. Shaner, City Engineer. (See "Machinery Wanted.")

Nashville, Tenn.—City will vote August 6 on issuance of \$50,000 of bonds for construction of sidewalks and curbing in city; James S. Brown, Mayor. (City was recently noted as contemplating issuance of \$125,000 of bonds for construction of suburban streets.)

New Orleans, La.—City will open bids June 18 for paving with granitoid blocked concrete University place from Canal to Common street. Address The Mayor.

Paducah, Ky.—Southern Bitulithic Co., Nashville, Tenn., is lowest bidder at \$25,210 for reconstructing Broadway and Jefferson street, between 9th and 11th streets, with bitulithic. It is probable that all bids will again be rejected and streets improved with gravel; L. F. Kolb, secretary Board of Public Works; L. A. Washington, City Engineer. (Recently mentioned.)

Stephenville, Texas.—City will vote July 14 on issuance of \$5500 of bonds for street improvements; N. C. Baldwin, Mayor.

St. Louis, Mo.—City will award contract June 26 for sidewalk improvements from letting No. 9069 to letting No. 9096; sidewalks to be five and six feet wide and paved with granitoid; A. J. O'Reilly, president, and W. B. Dryden, secretary, Board of Public Improvements. (See "Machinery Wanted.")

St. Petersburg, Fla.—City will vote July 28 on \$5000 bond issue for street improvements. Address The Mayor.

St. Louis, Mo.—City sold \$500,000 of bonds for Kingshighway boulevard, city's share of cost. Address The Mayor. (See "Bridges, Culverts, Viaducts, etc.")

Van Buren, Ark.—T. A. Bayley, engineer, Fort Smith, Ark., is completing surveys and specifications for about 10,000 square yards of brick paving on Main street, Van Buren.

Winchester, Ky.—City is considering macadamizing New street. Address The Mayor.

### SEWER CONSTRUCTION

Atlanta, Ga.—City contemplates asking Legislature for authority to vote on issuance of bonds, not exceeding \$1,500,000, for improvement of sewer system, water-works and schools. W. J. Campbell, City Clerk.

Atlanta, Ga.—City is considering issuance of about \$500,000 of bonds for sewer construction. Address The Mayor.

Baltimore, Md.—Board of Awards awarded contract to Reilly & Riddle, Lancaster, Pa., to build several storm-water drains in various sections of Baltimore at \$135,949.16; work to be completed within 300 days.

Baltimore, Md.—Harry Gilbert, 301 St. Paul street, will construct sewerage system in connection with development of property on Garrison avenue and Liberty road. (See "Miscellaneous Enterprises.")

Columbia, Miss.—City will expend \$50,000 in construction of sewer and water-works systems, recently mentioned; will erect brick building 50x75 feet; Xavier A. Kramer, Magnolia, Miss., is engineer in charge. (See "Machinery Wanted.")

Dallas, Texas.—City will construct storm sewer from Commerce street to creek at Fair Grounds. Address The Mayor. (See "Road and Street Improvements.")

Dayton, Station Newport, Ky.—City has opened bids for construction of sewer system. All proposals exceed amount of bonded indebtedness city may incur, and new bids will probably be invited. Address The Mayor. (City mentioned in May as contemplating issuing \$28,000 trunk-sewer bonds.)

El Paso, Texas.—City will engage Rudolph Hearing and George W. Fuller, New York city, to make surveys and recommend plans for sewage-disposal plant for El Paso.

Hopkinsville, Ky.—City is expending about \$12,000 in proposed improvements to streets and sewers; Chas. M. Meacham, Mayor.

Knoxville, Tenn.—Board of Public Works has rejected all bids for proposed First creek sewer extension, and proposals will be re-advertised; lowest bid submitted was \$11,563.50. New bids will be opened June 18; John W. Fleniken, chairman Board of Public Works. (See "Machinery Wanted.")

Lexington, Ky.—City will renew work about July 1 on construction of southern main sewer of system of trunk sewers, work on which was stopped last July. City Engineer will supervise construction and contract will probably be awarded to local contractors; J. W. Skain, Mayor. (Contract recently mentioned to be awarded June 30.)

Louisville, Ky.—Commissioners of Sewerage, Equitable Building, Louisville, invite bids until June 24, as recently stated, for construction of section "A" of 25th-street sewer, contract No. 8 of comprehensive system of sewerage; P. L. Atherton, chairman of board; J. B. F. Breed, chief engineer; Harrison P. Eddy of Metcalf & Eddy, 14 Beacon street, Boston, Mass., consulting engineer. (See "Machinery Wanted.")

Montgomery, Ala.—City is considering issuing \$25,000 of bonds for extension of sanitary-sewer system. Address The Mayor.

Orange, Texas.—City has completed arrangements for laying five miles of sewer pipe and establishing pumping station with capacity of 1000 gallons per minute; piping will range from 8 to 15 inches in diameter; H. W. Cardwell, Mena, Ark., has secured 50-year franchise.

Paragould, Ark.—Improvement District No. 1 will award contract July 1 for furnishing labor, equipment and material and supplies for equipping and installing complete sewerage system and septic tank; W. K. Palmer Company, 718 Dwight Building, Kansas City, Mo., consulting engineer; R. L. Alexander, chairman Board of Improvement District No. 1. (See "Machinery Wanted.")

Rock Hill, S. C.—City is considering construction of sewerage system. Address The Mayor.

Stephenville, Texas.—City will vote July 14 on issuance of \$12,000 for construction of sewer system; N. C. Baldwin, Mayor.

St. Louis, Mo.—City has sold \$500,000 of bonds for public sewers and purchase of land. Address The Mayor. (See "Bridges, Culverts, Viaducts, etc.")

Sumter, S. C.—City will issue \$50,000 additional bonds to extend sewerage system. Address The Mayor.

Winston-Salem, N. C.—R. M. Bibb, Roanoke, Va., has contract at \$7900 to construct about two miles of sanitary sewers in Winston; estimated cost when completed, \$12,000; J. N. Ambler, City Engineer, will supervise work. (Recently mentioned.)

### TELEPHONE SYSTEMS

Harrisville, W. Va.—Berea & Slab Telephone Co. incorporated with \$10,000 capital stock by Jacob Hatfield of Harrisville, Newton Low, William Hall of Cairo, W. Va., and others.

Lockesburg, Ark.—Lockesburg Telephone Co. will construct telephone line to Paraciffa and Riddle.

Pineville, Ky.—City will sell on July 6 franchise to erect, operate and maintain telephone exchange; David Hahn, Mayor.

### TEXTILE MILLS

Anderson, S. C.—Print Cloth.—Anderson Cotton Mills has held meeting mentioned recently and increased capital stock from \$900,000 to \$900,000; now operates 70,000 spindles and 1864 looms.

Blakeley, Ga.—Cotton Goods.—C. M. Deal and associates have not yet organized proposed mill company previously referred to; may formulate plans later.

Charlotte, N. C.—Cotton Yarns.—Jewel Cotton Mills, lately reported incorporated with \$250,000 capital stock, has organized with W. W. Hagood, president; W. A. Watson, vice-president, and Thos. J. Lillard, secretary-treasurer; plans to build 5000-spindle fine-yarn mill.

Charlotte, N. C.—Cotton Yarns.—Sargeant Manufacturing Co., previously reported incorporated with capital stock of \$50,000, is reported as planning erection of mill for 3000 ring spindles to be operated by electricity; product to be 60s to 80s yarns; Sumner B. Sargeant among those interested.

Clinton, Tenn.—Hosiery-Magnet Knitting Mills will build dye-house, as reported last week; old dye-house will be used as additional finishing room; dye-house to be of brick, 40x75 feet, costing \$3900; machinery has been purchased, costing \$3900.

Denton, N. C.—Cotton Yarns.—Denton Cotton Mills Co. has not as yet begun construction

tion of proposed mill previously reported incorporated with capital of \$100,000 to build cotton-yarn mill of 5000 spindles; Berry Davidson, Gibbonville, N. C., among those interested.

Henderson, N. C.—Cotton Cloth.—Harriett Cotton Mills reported as to increase from \$300,000 to \$400,000 capital stock and build another mill; company recently completed mill for 12,000 spindles, but has not installed the machinery.

Hope Mills, N. C.—Cotton Cloth.—Hope Mills Manufacturing Co. reported as to discontinue finishing department and install 344 looms for weaving fine cloth.

Lexington, S. C.—Hosiery.—Rikard Knitting Co. organized with \$10,000 capital stock; contract awarded for 25 knitting machines and steam power plant; L. W. Redd, secretary. (Mr. Redd previously noted as proposing a plant.)

Lynn, N. C.—Finishing.—Pacolet Finishing Co., previously reported incorporated with \$125,000 capital stock, is understood to have about completed plant for dyeing and finishing product of Skyland Hosiery Co. of Skyland, N. C., and Tryon Hosiery Co. of Lynn.

Newberry, S. C.—Cotton Goods.—Highland Cotton Mills, incorporated some time ago with capital stock of \$300,000, is reported as proposing to plan mill; P. N. Martin and George S. Mower among incorporators.

Roanoke Rapids, N. C.—Damaska.—Rosemary Manufacturing Co. has completed two additions heretofore announced; first installation of machinery (5000 spindles, carding equipment and 104 looms) now in mill, but not yet erected; electric-power used; damask manufactured.

Newberry, S. C.—Cotton Cloth.—Newberry Cotton Mills has not decided as to recent reported addition of 10,000 spindles and 300 looms.

Vicksburg, Miss.—Rope and Twine.—J. E. Nelson and associates contemplate building cotton rope and twine mill later in the year.

### WATER-WORKS

Alta Loma, Texas.—City Commissioners, Galveston, Texas, recently mentioned to award contract July 2 for furnishing and installing air-lift pumping plant at Alta Loma, increasing Galveston's water supply, will erect brick building, 50x55 feet, costing \$7500. Air-lift pumping plant will have capacity of 5,000,000 gallons; cost of equipment \$24,000; Harry Pennington, Houston, Texas, engineer in charge; George B. Stowe of Galveston, architect; A. T. Dickey, City Engineer, Galveston.

Atlanta, Ga.—City proposes to petition Legislature for authority to vote on issuance of about \$1,500,000 of bonds for improvement of water-works, sewer system and schools; W. J. Campbell, City Clerk. (Improvements to water-works mentioned at various times.)

Baltimore, Md.—Water Board will recommend that contract for reservoir near Forest Park be awarded to Lane Bros. & Jones, T. Barton Jones, resident partner, 811 Fidelity Building, Baltimore, at \$489,810.20; work to be completed in 400 days; C. B. Clark & Co., 10 East Lexington street, Baltimore, are lowest bidders at \$33,572 for diversion sewer in connection, for 200 working days, but Board will recommend bid of Reilly & Riddle, Lancaster, Pa., at \$40,461, for 150 days. Alfred M. Quick, Water Engineer. (Recently mentioned.)

Beaufort, S. C.—City will vote June 30 on issuance of \$43,000 of bonds to purchase present water-works or build new plant, construct electric-light system and build town hall. It is proposed to petition Legislature later for authority to issue additional bonds. Address The Mayor. (Recently mentioned.)

Bennettsville, S. C.—City will soon award contract for construction of water system, for which about \$35,000 of bonds were previously reported to be issued. Address The Mayor.

Columbia, Miss.—City will erect brick building 50x75 feet in connection with water-works and sewer system recently mentioned; total cost \$50,000; Xavier A. Kramer, Magnolia, Miss., is engineer in charge. (See "Machinery Wanted.")

Dallas, Texas.—Hughes O'Rourke Company, probably of Dallas, has contract at \$27,777 for construction of pumping station recently mentioned; engine-room 100x50 feet; boiler-room 40x70 feet; pumping engine to have capacity of 10,000,000 gallons; plans by C. A. Gill & Son of Dallas.

Denison, Texas.—City will vote June 30 on purchase of water-works system of Denison City Water Co. at \$110,000. Address The Mayor.

Fairview, Okla.—City contemplates voting

on bond issue to install water-works and electric-light plant. Address The Mayor.

Gadsden, Ala.—City will vote on issuance of \$125,000 of bonds to purchase, construct or rebuild water-works system. This issue will replace \$100,000 in bonds voted some time ago. (James Nisbet Hazlehurst, Atlanta, Ga., recently mentioned as preparing plans for water-works to cost about \$100,000.)

Georgetown, Texas.—Georgetown Water & Electric Light Co. to expend \$25,000 in enlargement and improvement of water and light system; C. S. Hale, manager.

Lancaster, S. C.—City will award contract June 24 for furnishing material for construction of water-works recently mentioned; C. D. Jones, chairman Board of Commissioners of Public Works; John Crawford, clerk; H. S. Jaudon & Goss, engineers, Box 582, Savannah, Ga. (See "Machinery Wanted.")

Lindsay, Okla.—Town has engaged M. A. Earl & Co., Muskogee, Okla., as engineers for water-works and electric plant to be constructed; Otis Snow, Town Clerk. (Recently mentioned.)

Milltown, Ga.—City is considering construction of water-works and will probably issue about \$2000 of bonds. Address The Mayor.

Montgomery, Ala.—City is considering issuance of \$25,000 of bonds for improvement of water-works. Address The Mayor.

Newport, Ark.—People's Light, Water & Power Co. incorporated with \$25,000 capital stock by F. R. Suits, George O. Beebe and Henry Baldus.

Rising Star, Texas.—City has voted bonds for water and light plants. Address The Mayor.

Sallisaw, Okla.—City has voted bonds for water-works. Address The Mayor.

Shepherdstown, W. Va.—City will establish proposed water system; Harrison Sebley, Mayor. (See "Machinery Wanted.")

Springfield, Tenn.—City will extend water mains through South Springfield; J. W. Bell, Superintendent of Light and Water, will be in charge.

St. Petersburg, Fla.—City will vote July 28 on issuance of \$7000 of bonds to purchase steam pump for water-works. Address The Mayor.

Sweetwater, Tenn.—Guild & Co., Chattanooga, Tenn., have contract to construct water-works system for Sweetwater; \$30,000 of bonds have been voted.

## WOODWORKING PLANTS

Charleston, S. C.—Cigar Boxes.—American Cigar Co. of Chicago, Ill., will make improvements to plant at Charleston, including installation of new machinery.

Cullman, Ala.—Wagons.—Charles Rhuel's wagon factory, recently noted to be erected, will be three-story building; 52x64 feet; cost \$5000; no machinery needed.

Elizabethton, Tenn.—Furniture.—Bradley Furniture Manufacturing Co., recently reported incorporated, has purchased plant of Bradley Lumber Co.; will make changes in buildings and convert plant into furniture factory; president, Nathan Bradley; vice-president and general manager, M. L. Jack; secretary and treasurer, M. E. Clarke. (See "Machinery Wanted.")

Henderson, Ky.—Chairs.—Henderson Chair Factory building, recently mentioned, will be erected at cost of \$8000; cost of machinery, \$6000; material and machinery purchased; capacity of plant, 40 dozen chairs daily; W. S. Welmer, president; J. N. Wilson, secretary and treasurer.

Louis, Ky.—Mantles, Doors, Stairways, etc.—Boggs, Belcher & Sullivan Manufacturing Co. incorporated by J. D. Belcher, Mary L. Boggs and H. C. Sullivan; purchased plant of Boggs & Belcher and will build dryhouses and storerooms for seasoned lumber.

Mena, Ark.—Boxes.—Mena Box & Manufacturing Co. incorporated with \$10,000 capital stock by James L. Hogan, W. J. Fall, R. Dusenbury and others.

Raymond, Ga.—Leon Edmundson and associates, recently noted to establish plant to manufacture handles, spokes and excelsior, contemplate installing box factory. (See "Machinery Wanted.")

St. Louis, Mo.—Hoops, Staves, etc.—New Madrid Hoop & Lumber Co. incorporated by Edward Schaeperkoetter, William A. Schaeperkoetter, Louis H. Schaeperkoetter and others.

St. Louis, Mo.—Doors, etc.—St. Louis Scaffolding & Manufacturing Co. incorporated with \$100,000 capital stock by Henry P. Schroeder, Joseph C. Schroeder, William H. Baker and others.

St. Louis, Mo.—Folding Furniture.—St.

Louis Folding Furniture Co. incorporated with \$10,000 capital stock by Edmund D'Amour, Henry Eltzen, Albert Marks and others.

## BURNED

Baltimore, Md.—Acme Basket Co.'s plant; loss about \$20,000; building owned by Orr, Eppley & Co.

Darlington, S. C.—Darlington Mill Co.'s cotton ginnery; loss \$10,000.

Elizabeth City, N. C.—Crystal Palace Theater; Mr. White, proprietor.

Ellisville, Miss.—Ellisville Lumber Co.'s sawmill; loss about \$50,000.

El Paso, Texas.—Thorne Storage & Distributing Co.'s warehouse; loss about \$37,000.

Franklinton, La.—Two-story business building, owned by William P. Minckler; loss about \$4000.

Henrietta, Texas.—Henrietta Flour Mills.

Luray, Va.—Norfolk & Western Railway Co.'s depot; loss about \$25,000; C. S. Churchill, chief engineer, Roanoke, Va.

Martinsburg, W. Va.—Martinsburg Steam Laundry, W. E. Phillips, proprietor; building owned by C. D. Burns; loss about \$6000.

Mayfield, Ky.—Mayfield Water & Light Co.'s plant.

Memphis, Tenn.—Bluff City Coffin Co.'s plant; loss \$17,000.

New Orleans, La.—H. B. Eckers' bakery and residence; loss about \$10,000.

New Orleans, La.—Jacob Wambsgans' bakery; reported loss, \$12,000.

New Orleans, La.—John Jung's furniture store; loss to building and stock about \$12,000. Address John Jung, Jr.

New Orleans, La.—Engine-house. Address The Mayor.

Paragould, Ark.—Bertig Bros.' cotton ginnery; loss about \$6000.

Prattville, Ala.—J. A. Chambliss' sawmill; loss about \$2500.

Rock Hill, S. C.—Coca-Cola Bottling Works, building and machinery; office and warehouse of J. J. Kellar & Co.

Sanford, Fla.—G. H. Fernald's warehouse and machine shop and Chase & Co.'s packing-house; loss about \$75,000.

Waco, Texas.—Cooper Grocery Co.'s coffee-roasting plant; loss about \$15,000.

## BUILDING NOTES APARTMENT-HOUSES

Petersburg, Va.—Sycamore Apartments Co. incorporated with \$50,000 capital stock; W. E. Poole, president; R. H. Mann, vice-president; S. H. Turner, secretary.

Washington, D. C.—Fred S. Carson awarded contract to William A. Kimmel, 1508 Columbia road N. W., Washington, to erect three-story brick apartment-house at 1014 Massachusetts avenue N. E. at estimated cost of \$7000; Gilbert L. Rodier, 1511 S street N. W., Washington, prepared plans.

## BANK AND OFFICE BUILDINGS

Alachua, Fla.—First National Bank awarded contract to S. H. Dempsey, Alachua and Gainesville, Fla., for plans and construction of bank building recently mentioned; to be 60x23 feet, of white repressed brick.

Baltimore, Md.—Baltimore Mutual Fire Insurance Co., 219 Chamber of Commerce, will erect one-story fireproof offices; 24x100 feet; hot-water heat; electric and gas lighting; cost about \$15,000; plans being prepared by Haskell & Barnes, 301 North Charles street, Baltimore.

Baltimore, Md.—J. Henry Miller, 110-112 Dover street; E. G. Smyser Sons Company, 214 Clay street, John Waters, 23 East Center street; John Hiltz & Sons Company, 3 Clay street; McLaughlin Bros., 100 East Lexington street; David M. Andrew Company, Vickers Building; B. F. Bennett Engineering Co., 123 South Howard street; George Bunnecke & Sons, 305 St. Paul street; C. C. Watts, 113 West Hamilton street, and Henry Smith & Sons Company, 116-120 South Register street, all of Baltimore, are estimating on two-story addition 32x208 feet to be erected by Maryland Casualty Co., John T. Stone, president, to its building at Baltimore and North streets; cost estimated at \$70,000; plans by Otto G. Simonson, American Building, Baltimore. (Recently mentioned.)

Birmingham, Ala.—Commercial Club, John L. Kaul, president, is financing erection of office building; seven stories; reinforced concrete; fireproof; interior finish of marble; elevators; grill work; cost about \$119,000; cost of site \$110,000; committee has recommended that Chamber of Commerce Building Co. be incorporated.

Clyde, Texas.—First National Bank will erect two-story building; cost \$6500; W. A. Hinds, Baird, Texas, architect and contractor.

Murfreesboro, N. C.—People's Bank Building, recently mentioned, will be of brick construction; one story; 43x60 feet; for bank and store; plans by E. C. Smith, Franklin, Va.; bids to be opened June 20.

Norfolk, Va.—Wyatt & Nolting, Keyser Building, Baltimore, Md., with Taylor & Hepburn, 5 Academy of Music Building, Norfolk, associate architects, have prepared plans for four-story building to be erected by Virginia Bank & Trust Co.; plans on file at Builders' Exchange, Charles and Lexington streets, Baltimore. (Recently mentioned.)

Norman, Okla.—First National Bank will erect addition; brick; 40x25 feet; cost \$14,000.

Oklahoma City, Okla.—J. P. Martin will erect office building; fireproof; seven stories and basement; 40x140 feet; two elevators; cost about \$100,000; contract awarded to Thomas O'Keene of Oklahoma City.

Oklahoma City, Okla.—Mr. Schambis, Mansfield, Ohio, will erect, it is reported, four-story office building in Oklahoma City, to cost about \$20,000.

Oklahoma City, Okla.—The Daily Oklahoman, E. K. Gaylord, business manager, is planning erection of newspaper and office building; five stories; reinforced concrete construction; steam or hot-water heating; vacuum cleaning appliances; electric and gas lighting; double elevators; pneumatic tubes; fireproof vaults; cost estimated at \$75,000; construction work expected to begin in August. (See "Machinery Wanted.")

Oklahoma City, Okla.—Dr. L. H. Buxton and J. B. Garrison awarded contract to L. B. Stone of Oklahoma City to erect office building; plate-glass front; four stories; brick; cost \$15,000.

St. Louis, Mo.—Pennsylvania Building Co. incorporated with \$50,000 capital stock by Walter J. Holbrook, George H. Blackwelder, Sidney T. Bixby and others to erect store and office building, 54x109 feet; fireproof; four stories and basement; steel skeleton construction; cost about \$85,000; plans by H. F. Roach, 721 Olive street, St. Louis; Hill & O'Meara Construction Co., St. Louis, contractors.

Plainview, Texas.—First National Bank awarded contract to Casper & Simmons of Plainview and Amarillo, Texas, to erect bank building; two stories; 75x140 feet; brick and stone; fireproof; heating and plumbing contracts will be let separately; total cost about \$42,000.

Rutledge, Tenn.—People's Bank Building, recently noted, will have banking room on first floor; offices above; two stories; pressed brick; Bedford stone trimmings; 34.5x40; cost about \$6000; architect L. C. Waters, Knoxville, Tenn.; contractor, C. B. Willing, Morristown, Tenn. (See "Machinery Wanted.")

## CHURCHES

Anchorage, Ky.—St. Luke's Episcopal Church will erect edifice. Address The Pastor St. Luke's Episcopal Church.

Birmingham, Ala.—Temple Emanuel Congregation will erect temple to cost between \$60,000 and \$70,000; G. Rotholz, president.

Chattanooga, Tenn.—First Presbyterian Church, Dr. J. W. Bachman, pastor, will proceed with arrangements for \$100,000 edifice, for which plans were noted to be prepared by Bearden & Foreman, Chamberlain Building; associate architects, McKim, Meade & White, 160 Fifth avenue, New York; marble or stone and brick building; tile roof; terracotta trimmings; one-story church and two-story Sunday-school room, covering ground-floor space of 14,000 square feet; auditorium, 72x80 feet; hot water or steam heat; electric and gas lighting; H. S. Probasco, American National Bank, Chattanooga, chairman building committee.

Chattanooga, Tenn.—Centenary M. E. Church, South, contemplates purchase of lot at McCallie avenue and Lindsay street for \$25,000 and erection of edifice; Creed F. Bates, 306 Miller Building, chairman of committee.

Leesville, S. C.—Methodist Church will erect proposed edifice after plans by C. Gadsden Sayre & Co., Anderson, S. C.; building about 45x60 feet; brick; stone foundations and trimmings; hot-air heating; electric lighting; cost \$8000; construction by day's labor.

Shreveport, La.—Central Christian Church will erect edifice to cost about \$35,000; plans by L. C. Green, Houston, Texas.

## COURTHOUSES

Bartow, Fla.—Polk County Commissioners, John M. Keen, chairman, Lakeland, Fla.,

awarded contract to Mutual Construction Co., Louisville, Ky., at \$33,890 for erection of courthouse; three stories, basement and dome; brick; 119x88 feet; pressed-brick and stone trimmings; lintels for all openings to be of reinforced concrete; second floor will have prisoner's cell of either cement walls or case-hardened steel bars; all floors and ceiling to be fireproof; record vault windows in basement to have steel rolling fireproof shutters; stairs to have brass hand rails; slate roof; plumbing and electrical wiring; plans by E. C. Hosford & Co., Eastman, Ga. (Recently mentioned.)

Galveston, Texas.—Electric Wiring.—Commissioners of Galveston county awarded contract to Barden Electric & Machinery Co., Houston, Texas, at \$2600 for proposed rewiring of courthouse; John M. Murch, County Auditor.

Houston, Texas.—Harris county will open bids August 1 for erection of \$500,000 courthouse, for which Lang & Witchell, Dallas, Texas, were recently noted to be completing plans; fireproof building; vacuum steam heat; separate contracts for heating, plumbing, wiring, power plant and elevators; plans to be ready July 1; A. E. Amerman, County Judge.

Welch, W. Va.—McDowell county courthouse annex (recently noted) will be of stone; to contain clerks' offices and fireproof vaults; plans by W. E. & E. L. Shuffelbarger, Bluefield, W. Va., will probably be ready in July; P. B. Bernheim, clerk county court.

## DWELLINGS

Anderson, S. C.—B. T. Armbrack, Jr., has had plans prepared by J. H. Casey, Anderson, for erection of 10-room bungalow; steam or hot-water heat; electric lighting; cost \$4000.

Baltimore, Md.—M. Fillmore Carter has had plans prepared by Jacob F. Gerwig, Vansant Building, 210 East Lexington street, Baltimore, for 10 dwellings on Westwood avenue; two stories; 53 feet front; cost \$22,000.

Baltimore, Md.—Walter L. Westphal, 1700 North Bond street, will erect 36 dwellings on Potomac street; 31 to be 12x38 feet and five 12x45 feet; two stories; brick; tin roofs; furnaces; cost \$31,700.

Baltimore, Md.—Crescent Realty Co., 615 Galtier Estate Building, has purchased site on Wabash avenue 81x273 feet, and will erect 40 two-story dwellings to cost about \$60,000.

Baltimore, Md.—Arthur Burdette, 1950 West Fayette street, has had plans prepared by Jacob F. Gerwig, 11 East Lexington street, Baltimore, for 12 dwellings on Baltimore street; two stories; 14x48 feet; cost about \$18,000.

Baltimore, Md.—John R. Bland, president United States Fidelity & Guaranty Co., Calvert and German streets, awarded contract to Henry A. Nagle for erection of residence on Rolling road, near Catonsville.

Baltimore, Md.—C. B. Burdette, 61 Gunther Building, has had plans prepared by Jacob F. Gerwig, 210 East Lexington street, Baltimore, for eight dwellings on Oak street; two stories; 14x48 feet; brick; ordinary construction; hot-air heat; gas and electric lighting; cost \$15,000; construction by owner.

Baltimore, Md.—St. Paul Realty Co., 301 St. Paul street, will erect 20 three-story houses; 15x55 feet; ordinary construction; steam heat; gas and electric lighting; cost \$50,000; plans by John R. Forsythe, Baltimore; construction by St. Paul Realty Co.

Baltimore, Md.—Charles Schmidt awarded contract to James L. Constantine, Arlington, Ind. Station E, Baltimore, Md., for erection of dwelling; two stories; frame; 32x32 feet; cost \$6000; plans by J. Zanier.

Baltimore, Md.—H. A. Thaman has had plans prepared by William C. Schnabel, 2226 East Biddle street, Baltimore, for residence on Erdman avenue; 2½ stories; 34x35 feet; concrete; slate roof; hot-water heat; cost \$8000.

Baltimore, Md.—Edward J. Storck, 86 Gunther Building, will erect row of 30 houses; 14x43 feet each; hot-air heat; gas lighting; cost \$49,000; plans by Harry E. Storck, who will supervise buildings.

Charlotte, N. C.—W. L. Wilhoite awarded contract to Hunter & Vaughn, Charlotte, for erection of residence in Dilworth, to cost about \$4300.

Chattanooga, Tenn.—Frank Spurlock, 25 Times Building, will erect \$15,000 residence at Riverview (suburb); colonial style; brick; two stories; basement and attic; tile roof; hot-water heat; acetylene-gas lighting; plans by Adams & Alsop, Chamberlain Building, Chattanooga.

Chattanooga, Tenn.—Webster T. James, address, Pittsburg, Ga., will erect \$25,000 residence on Lookout Mountain near Lookout

Inn (suburb); two stories and basement; tile roof; hot-water heat; acetylene-gas lighting; mountain sandstone construction; plans by Adams & Alsop, Chamberlain Building, Chattanooga.

Chattanooga, Tenn.—Theodore F. King, Keystone Block, will erect \$10,000 residence at Riverview (suburb); plans by Adams & Alsop, Chamberlain Building, Chattanooga; colonial-style building; brick; tile roof; two stories; hot-water heat; acetylene-gas lighting.

Chattanooga, Tenn.—M. M. Allison, 609 Oak street, will erect \$12,000 residence at Riverview (suburb); brick; two stories, attic and basement; tile roof; hot-water heat; acetylene-gas lighting; plans by Adams & Alsop, Chamberlain Building.

Chattanooga, Tenn.—Mrs. Sarah M. Forshew, 610 Georgia avenue, awarded contract to C. N. Moulton, Thompson street, Hill City, Tenn., for erection of \$5000 dwelling; frame; metal roof; two stories; 16 rooms; hot-air heat; electric lighting; plans by W. T. Huntington, News Building, Chattanooga.

Fort Worth, Texas.—Guy L. Wagoner has purchased site 300 feet at \$17,000 and will erect residence.

Havre de Grace, Md.—A. G. Burns will erect six concrete-block dwellings.

Indio (not a postoffice), Ala.—De Sota Coal Mining & Development Co., office 631 First National Bank Building, Birmingham, Ala., will erect 50 dwellings at mines; cost \$20,000. (See "Mining.")

Kansas City, Mo.—St. Stephen's Catholic congregation has purchased site and will erect \$5000 parochial residence.

Knoxville, Tenn.—William Carrick Moore will erect \$25,000 residence.

Memphis, Tenn.—George E. Bailey will erect residence; two stories; eight rooms; brick veneered; concrete foundation; slate roof; cost (exclusive of heating, wiring and plumbing) \$5000.

Montgomery County, N. C.—Rev. Oscar Haywood, D. D., is having plans prepared by E. L. Love, Holding block, Huntsville, Ala., for residence in Montgomery county, North Carolina, to cost \$10,000.

Oklahoma City, Okla.—Gum Bros. will erect six residences in Classen's East Highlands; two stories; eight rooms; brick.

Richmond, Va.—Charles Gasser, 814 West Cary street, had plans prepared by Carl Ruehrmund, Main street, Richmond, for \$9000 residence recently mentioned; two-story building; 78x24 feet; concrete walls; reinforced concrete floors and roof; hot-water heat; gas and electric lighting; construction by owner.

Roland Park, Station L, Baltimore, Md.—George P. Neilson, superintendent Baltimore Bargain House, 204-220 West Baltimore street, Baltimore, has purchased site at St. John's and Club roads and will erect residence; two-and-one-half stories; frame; hot-water heating; electric lighting; architect not announced.

Victoria, Texas.—J. F. McCan will erect \$10,000 residence.

Washington, D. C.—John Hays Hammond of New York city has had plans prepared by Nathan C. Wyeth, 1517 H street, N. W., Washington, for dwelling to be erected at 24th and U streets.

Washington, D. C.—Harry Wardman, 1335 G street N. W., will, it is reported, erect row of two-story dwellings, to cost about \$22,000.

Washington, D. C.—E. A. Clark, Commissioner Interstate Commerce Commission, 1315 F street N. W., awarded contract to Harry C. Jones, 28 Jackson street, Annapolis, D. C., for erection of dwelling at Chevy Chase; two stories; frame; cost about \$7800; plans by T. M. Medford, 1618 Marion street, Washington.

Washington, D. C.—H. R. Howenstein, 1314 F street N. W., has had plans prepared by F. T. Schneider, 1110 F street N. W., Washington, for five dwellings; six rooms and bath each; ordinary construction; hot-air heating; cost \$15,000; construction by H. R. Howenstein.

## HOTELS

Greenville, S. C.—Greenville Hotel Co. is about to award contract for hotel previously mentioned; about 100x150 feet; five stories; colonial design; red brick; copper cornices; terra-cotta trimmings; will contain palm-rooms, sun parlor; about 89 bedrooms, almost half of which will have baths and toilets, etc.; elevator; steam heat; electric lighting; estimated cost \$100,000. It is contemplated later to remodel old mansion, which now stands within 15 feet of proposed hotel, and connect with hotel by bridge; plans by Shand & Lafaye, Columbia, S. C.

Hawkinsville, Ga.—Morgan Thompson awarded contract to A. J. Franklin, Statesboro, Ga., to erect hotel mentioned in April; three stories and basement; brick; 40 rooms; fireproof construction; steam heat; electric lighting; electric elevators; estimated cost \$25,000; plans by H. W. Witcover, Savannah, Ga.; contract for steam heating not awarded.

Highfield, Md.—George L. Strine, Waynesboro, Pa., has contract, it is reported, to erect hotel in Highfield for Mrs. Shatzer.

Louisville, Ky.—Frank Eckert, proprietor Eckert Hotel, is considering erection of stag hotel; fireproof; electric lighting; steam heating; probably Turkish bath; cost about \$75,000.

Meridian, Miss.—Grand Avenue Hotel Co. incorporated with \$5000 capital stock by E. L. Seay, G. E. Bullock, C. H. Dabbs and others.

Nashville, Tenn.—G. L. Lockhart, 1201-2 Stahlman Building, Nashville, is preparing plans for proposed hotel on Broad street; fireproof building; 50-foot front; cost \$75,000; bids to be ready June 18.

Pensacola, Fla.—Arriola Hotel Co., recently reported to be incorporated with \$200,000 capital stock, elected James M. Muldon, president; P. K. Yonge, first vice-president; John E. Stillman, second vice-president; F. C. Brent, treasurer; F. F. Bingham, secretary; hotel will probably be eight stories, contain 200 rooms and will be managed by Hervey Hotel Co., Mobile, Ala.

St. Louis, Mo.—Southern Hotel has had plans prepared by Barnett, Haynes & Barnett, St. Louis, for improvements to cafe costing about \$10,000. (Recently mentioned.)

Washington, D. C.—Harrington Mills, proprietor Hotel Grafton, Connecticut avenue and De Sales street N. W., awarded contract to Marsh & Peter, architects, 520 13th street N. W., Washington, for addition to hotel; 47x100 feet; 110 feet high; contain 90 rooms, including dining-room, 45x90 feet; cost estimated at \$150,000.

## MISCELLANEOUS STRUCTURES

Atlanta, Ga.—Business Building.—Samuel M. Inman will erect reinforced concrete building, to be occupied by Liquid Carbonic Co., contract for which was recently noted to be awarded to H. L. Stephens Company; latter's main office, Knoxville, Tenn.

Atlanta, Ga.—Store Building.—Dabney H. Seville awarded contract to Griffin Construction Co., Atlanta Ga., for erection of store building to replace burned structure; 62x110 feet; steam heat; electric lighting; electric elevators; cost \$35,000; plans by G. W. Laine, Peters Building, Atlanta, Ga.; building recently mentioned. (See "Machinery Wanted.")

Baltimore, Md.—Hospital.—Johns Hopkins Hospital, John C. Thomas, treasurer, Calvert Building, will establish department for study and treatment of insanity; additional building to be four stories high; \$750,000 available; details to be determined.

Baltimore, Md.—Store Building.—Following are estimating on construction of store building recently reported to be erected by Robert Riddell Real Estate Co. at 17 and 19 East Baltimore street: John Hiltz & Sons Company, rear 3 Clay street; J. Henry Miller, 110-112 Dover street; George Bunnecke & Sons, 305 St. Paul street; Walter E. Burnham, Builders' Exchange; Morrow Bros., 218 West Saratoga street; B. F. Bennett Engineering Co., 123 South Howard street, and Henry Smith & Sons Company, 115 Hanover street, all of Baltimore.

Baltimore, Md.—Postoffice.—Contractors estimating on erection of addition to postoffice, recently mentioned, include B. F. Bennett Engineering Co., 123 South Howard street; Noel Construction Co., U. S. Fidelity & Guaranty Building; J. Henry Miller, 110 Dover street; David Peoples, 213 North Calvert street; Charles McCaul Company, American Building, all of Baltimore, and Cramp & Co., Commonwealth Building, Philadelphia, Pa.

Charleston, S. C.—Tristram T. Hyde has purchased for syndicate lot and three-story brick building at King and Wentworth streets; structure will be remodeled and improved into business building; expenditure about \$10,000.

Charleston, S. C.—Lodge Building.—Charleston Lodge of Elks has purchased residence for \$15,000 and will expend \$5000 to remodel for lodge building.

Chattanooga, Tenn.—Stores, etc.—Park Lodge, Knights of Pythias, will erect \$5000 brick building at Orchard Knob and Bailey avenues; size, 50x53 feet; metal or composition roof; two stories on grade floor; two apartments in second story; third floor, lodgerooms; O. J. Cope, 807 Kirby avenue, chairman building committee.

Columbus, Ga.—Business Building.—A. Higgs awarded contract to M. C. Barlow, Columbus, for erection of business building; three stories; 26x125 feet; brick; stone front; freight elevator; plans by Lockwood Bros., Columbus. (Mentioned in May.)

Crystal Springs, Miss.—Business Building.—S. H. Howell awarded contract to H. A. Pallfelt, Hattiesburg, Miss., for erection of two-and-one-half-story brick business building; work to be commenced August 1.

Dallas, Texas.—Business and Apartment Building.—James A. Cressey has purchased site and will erect building; first floor for business purposes; second floor, apartments. (See "Miscellaneous Manufacturing.")

Florence, Ala.—Postoffice.—Supervising Architect, James Knox Taylor, Treasury Department, Washington, D. C., has rejected all bids for construction of United States postoffice at Florence. New bids will be asked. (Mentioned in April.)

Houston, Texas.—Store Buildings.—L. H. Perry has had plans prepared by A. Delsale, Houston, for building 100 feet square; three stories; St. Louis hydraulic gray press brick; cement trimmings; galvanized-iron cornice; fireproof roofing; gas and electric lights; cost about \$28,000; first floor will contain four storerooms, with plate-glass fronts. W. H. Taylor, Houston, has charge of brick work; J. P. Dick, supervisor of carpenter and other work.

Jackson, Miss.—Hospital.—State Insane Hospital is erecting porches recently mentioned; four galleries, each 114 feet long; three stories high; iron grille enclosures; cost \$8000; plans by R. H. Hunt, Chattanooga, Tenn.; John T. Willis, superintendent of construction.

Lake Charles, La.—Temple.—Masonic Lodge will open bids June 29 for erection of proposed Masonic Temple according to plans prepared by I. C. Carter, Lake Charles.

Little Rock, Ark.—Hospital.—Logan H. Roots Memorial Hospital will erect addition to hospital; cost \$75,000.

Little Rock, Ark.—Orphanage.—St. Joseph's Orphanage building, recently described, will be erected at cost of \$250,000 for completed building; fireproof; 200x250 feet; five stories; steam heat; electric lighting; electric elevators; architect, Chas. L. Thompson, Little Rock; contractor, Hugh McLennan, First National Bank Building, Chicago, Ill.

Little Rock, Ark.—Store Buildings.—Bishop J. B. Morris is having plans prepared by C. L. Thompson, Little Rock, for row of two-story brick store buildings.

Lynchburg, Va.—Hospital.—Drs. Terrill, Lile and Carroll, St. Andrew's Hospital, having plans prepared by Lewis & Burham, Lynchburg, for hospital building; four stories; 40x50 feet; 60 rooms; brick; stone trimmings; colonial style; Ionic columns extending two stories around semi-circular porch; first floor to be half basement; cost about \$20,000.

Mobile, Ala.—Convent.—Sisters of Mercy awarded contract to W. H. Wood, Mobile, at about \$40,000 for erection of convent; three stories and basement; brick, cement and stucco; hardwood finish; semi-fireproof; plans by A. H. Downey, Mobile. (Recently mentioned.)

Nashville, Tenn.—Hospital.—University of Nashville will erect \$75,000 hospital building.

New Orleans, La.—Store Building.—Tolcano & Wogan, New Orleans, have completed plans for building recently reported to be erected by C. C. Cordill to replace burned structure; building will be five stories, 28x158 feet on first floor; other floors 28x144 feet; exterior white terra-cotta, with polychrome ornaments; fireproof; steel frame protected with concrete; inclosures of elevators and stairs are to be of four-inch hollow terra-cotta tiles, cemented on both sides; openings in structure will be kalsomined and glazed with 3/4-inch wire glass; outside openings of galvanized iron glazed with 3/4-inch-thick wire glass; front casement sash and doors to be glazed with clear plate glass, and front transoms with Luxfer prisms. Electric wiring will run in rigid steel conduits, and switches for fixtures on each floor will be inclosed in steel cabinet at head of each flight of stairs; floor area about 21,000 square feet; cost about \$50,000.

Oklahoma City, Okla.—Business Building.—Curtis Branson will erect four-story business building.

Oklahoma City, Okla.—Business Building.—Mr. LeClerque of Paris, Texas, will erect seven-story business building.

Oklahoma City, Okla.—Business Building.—W. F. Bush will erect business building; four stories; 50-foot front; cost about \$30,000.

Oklahoma City, Okla.—Business Building.—Mrs. Jack Wright will erect business building; eight stories; 50-foot front.

Oklahoma City, Okla.—Business Building.—Mrs. Finley of St. Louis, Mo., will erect \$20,000 business building.

Preston, Ga.—Jail.—Webster county will open bids July 10 for erection of jail; 22x22 feet, 11 feet high; brick; three cells; George E. Thornton, clerk of Board of Commissioners.

Reisterstown, Md.—Hospital Building.—Samuel Rosenthal, donor, will erect additional cottage on grounds of Jewish Home for Consumptives, near Reisterstown; cottage recently noted to be erected will be of frame, with hot-water heat and electric lighting; six rooms; C. M. Anderson, architect, 324 North Charles street; Thomas P. Johns, contractor, 405 McCulloh street; cost about \$10,000; donors, Louis Sigmund Kann and Simon Kann, all of Baltimore.

Rome, Ga.—Business Building.—M. G. McDonald has purchased site at \$17,500 and, with associates, will erect business block.

San Antonio, Texas.—Postoffice.—Edw. W. Roberts, supervising architect's department, Washington, D. C., has prepared plans and specifications for remodeling interior of postoffice.

San Antonio, Texas.—Business and Apartment Building.—P. H. Langsdorf will erect business and apartment building; two stories and basement; 44x50 feet; lower floor will have front and part of side of plate glass and contain two storerooms; upper floor will be fitted as apartments; plans by Leo M. J. Dielmann, San Antonio.

Tampa, Fla.—S. H. Kress & Co. awarded contract to J. W. Teasley, Tampa, at \$16,000 for brick work, and D. J. Anderson, Tampa, for woodwork on proposed store building; three stories; fireproof; gas heat; electric lights; cost \$45,000; J. H. Zeitner of New York is contractor for building, and Shaw & Jay, 106 Lafayette street, Tampa, are architects. (Mentioned in April.)

Tyler, Texas.—Postoffice.—Emporia Plumbing Co., Emporia, Kan., has contract at \$700 to install heating apparatus in U. S. Postoffice and Courthouse at Tyler, and Rockett-Woolley Electric Co., Corsicana, Texas, at \$200 to install conduit and electric system; contract for erection previously reported awarded to John I. Portis & Co. of Tyler at \$27,372; James Knox Taylor, supervising architect, Treasury Department, Washington, D. C.

Washington, D. C.—Inauguration Stands.—Joint committee on invitation from National Society of Fine Arts, Percy Ash, secretary the Octagon, will invite architects to submit competitive plans for arrangement of stands for spectators on route of inaugural procession.

Washington, D. C.—Stable.—W. W. Griffith, 1st and N streets N. E., awarded contract to H. C. Jones, 28 Jackson street, Annapolis, D. C., for erection of stable at 52 N street N. E.; two stories; brick; cost about \$5000; plans by T. M. Medford, 1618 Marion street N. W., Washington.

Washington, D. C.—Store.—A. G. Johnson, 1718 19th street N. W., awarded contract to T. L. Lewis, 132 Rhode Island avenue N. W., Washington, for erection of store building at Wisconsin avenue and P street N. W.; one story; brick; cost about \$6000; plans by F. T. Schneider, 1110 F street N. W., Washington.

## MUNICIPAL BUILDINGS

Baltimore, Md.—Stable.—Edward Watters & Co., 532 St. Paul street, Baltimore, have contract at \$5500 to build one-story stable and wagon shelter for Water Department in Gay-street yard; 80x20 feet; ordinary construction; electric lighting; plans by A. M. Quick, president Water Board, and Water Engineer, City Hall, Baltimore.

Beaufort, S. C.—Town Hall.—City will vote June 30 on \$43,000 bond issue to erect brick town hall at cost of \$15,000; purchase or build new water-works and construct electric-light plant; additional bonds will probably be issued later. Address The Mayor. (Recently mentioned.)

Norfolk, Va.—Palmhouse.—City contemplates erecting palmhouse and two plant-houses in City Park. The Weathered Company, Jersey City, N. J., has offered to do entire work for \$10,690, including excavating and grading to cost \$1690. Address The Mayor.

Richmond, Va.—Market and Armory.—Averill & Hall, Washington, D. C., have, it is reported, been selected as architects for combined market and armory building at Richmond; Charles E. Bolling, City Engineer. (Mentioned in April.)

Stephenville, Texas.—City Hall.—City will vote July 14 on issuance of \$7500 of bonds for erecting City Hall; N. C. Baldwin, Mayor.

St. Louis, Mo.—Buildings.—City has sold \$5,500,000 of bonds, of which \$800,000 will be used for hospital and sites, \$130,000 for fire department (engine-houses and lots), \$2,000,000 for police, civil, criminal and other courts, police and health department headquarters, and purchase of sites, etc. (See "Bridges, Culverts, Viaducts.") Address The Mayor.

### RAILWAY STATIONS

Houston, Texas.—Houston Belt & Terminal Co., W. E. Green, Fort Worth, vice-president and general manager, Fort Worth, Texas, has, it is reported, rejected all plans for terminal passenger depot in Houston, and will invite new plans.

Poplar Bluff, Mo.—St. Louis, Iron Mountain & Southern Railway (Missouri Pacific Railway system), James W. Way, consulting engineer, St. Louis, Mo., will, it is reported, erect freight depot and expend \$35,000 for erection of passenger station.

Savannah, Ga.—Brinson Railway, George M. Brinson, president, Springfield, Ga., will, it is reported, build freight depot in Savannah.

### SCHOOLS

Anderson, S. C.—Alumni Association of Clemson College will erect alumni building; three stories; cost \$75,000; ground floor to contain gymnasium, bathrooms, swimming pools, etc.; second and third floors, libraries, reading-rooms, bedrooms, etc.

Athens, Ga.—University of Georgia will erect building to cost about \$50,000; completed by September, 1909.

Atlanta, Ga.—City contemplates improvements to schools, etc., and will petition Legislature for authority to issue about \$1,500,000 of bonds; W. J. Campbell, City Clerk. (See "Water-Works.")

Baltimore, Md.—Board of Awards, J. Barry Mahool, Mayor, president, awarded contract to P. J. Cushman, Law Building, Baltimore, at \$15,000, for erecting 12 portable schoolhouses; frame; 23x39 1/2 feet; mill construction; plans by B. B. Owens, School Supervisor.

Bartlesville, Okla.—Board of Education is considering plans submitted by following architects for high school and ward buildings recently mentioned: Babcock & Hart, Bartlesville; Everman & Larmour, Bartlesville; C. W. Squires, Emporia, Kan.; three ward buildings; eight rooms; fan steam heat; cost of structures \$100,000; C. L. Foulk, clerk.

Bartlett, Texas.—City awarded contract to Ed Flick & Son, Bartlett, for erection of proposed school building.

Bartlett, Texas.—City awarded contract to E. Flick & Son, Bartlett, at \$18,250 for erection of proposed high-school building; heating and furniture not included; brick building; two stories; 11 rooms; hot-air heating or individual stove ventilating system to be used; G. A. Lindemann, City Secretary. (See "Machinery Wanted.")

Belton, S. C.—City has plans prepared by J. H. Casey, Anderson, S. C., for school building mentioned in May; to have eight classrooms and auditorium; steam heat; electric lighting; cost \$12,500; bids to be opened June 22.

Biltmore, N. C.—City has had plans prepared by C. E. Davis, Biltmore, for school building; two stories, 66x52 feet; first floor will contain four classrooms; second, auditorium.

Bristow, Okla.—City has voted \$18,000 of bonds for erection of school building. Address The Mayor. (Recently mentioned.)

Burkesville, Ky.—Cumberland County Educational Society has been incorporated and will erect college building.

Charlottesville, Va.—University of Virginia, E. A. Alderman, president, is having plans prepared for proposed law building to cost \$70,000. Structure will be north building of new quadrangle. Warren H. Manning of Boston, Mass., is landscape architect.

Cheneyville, La.—City will open bids June 25 for erection of school building; two stories and basement; brick; 60x90 feet; slate roof; steam heat; lighting not decided; cost \$20,000; plans and specifications on file at office of C. G. Honold, architect, Abbeville, La. Bids must be accompanied by certified check for \$500, marked "Proposal for School Building," and addressed to H. B. Landis, secretary, Cheneyville, La.

Columbus, Miss.—State Industrial Institute and College is having plans prepared for \$12,000 brick library building by R. H. Hunt, James Building, Chattanooga.

Cotulla, Texas.—School Board will erect building recently noted; cost \$12,500; plans not made.

Courtland, Ala.—City will vote July 6 on

\$5000 bond issue for erection of school building. Address The Mayor.

Dryrun, W. Va.—Board of Education, D. R. Ross, secretary, will open bids July 6 for erection of annex to school building; plans prepared by George D. Whitson, East King street, Martinsburg, W. Va.

Elgin, Texas.—Elgin School District has not yet engaged architect to prepare plans for school building recently noted; as proposed, structure will be of brick; four rooms; cost \$6000; bids to be opened about July 15; A. H. Carter, secretary School Board, Elgin.

Fort Worth, Texas.—Independent School District will expend \$26,000 in erection of school building at North Fort Worth; plans by M. L. Waller, Fort Worth; contractors, Weeks & Bushnell, Arlington, Texas; brick and reinforced concrete building; 74x37 1/2 feet; fireproof; hot-air heating; electric lighting. (Recently noted.)

Greenville, N. C.—Eastern Carolina Teachers' Training School awarded contract to the Building & Lumber Co., Greenville, at \$81,529.87 for erection of administration building, two dormitories and refectory; plans by Hook & Rogers, Charlotte, N. C., and H. W. Simpson, Newbern, N. C. (Mentioned in May.)

Greelyville, S. C.—Board of Trustees, T. W. Boyle, chairman, will erect school building recently noted; plans not made; as proposed, building to be of brick construction; cost about \$7000.

Gurdon, Ark.—City will open bids June 18 for erection of school building; plans and specifications on file at office of W. F. Osborne, Gurdon; plans by Stewart & Witt, Texarkana, Ark.; certified check for \$300. Address Gurdon School Board, care of W. F. Osborne, Gurdon.

Hagerstown, Md.—City will invite plans for school building; brick; eight rooms; cost about \$10,000. Address The Mayor.

Hampton, Va.—Virginia State School for Colored Deaf, Dumb and Blind Children awarded contract to C. T. Holtzclaw, Hampton, for furnishing plans and specifications for proposed buildings in Elizabeth City county; plans to include frame residence for superintendent and faculty; brick building, to be erected at present, will have capacity for 200 pupils; ordinary construction; steam heat; electric lighting; cost \$20,000; date of opening bids not fixed.

Henryetta, Okla.—City will receive bids for erection of school building. Address The Mayor.

Hill City, Tenn.—Board of Education of Hamilton county will open bids June 18 for erection of school building; two stories; pressed-brick facing; gravel roof; cost about \$15,000; plans and specifications on file at office of Adams & Alsop, Chamberlain Building, Chattanooga, Tenn.; certified check for \$250; J. A. Hargraves, chairman. (Mentioned in May.)

Hixson, Tenn.—Hamilton County Boards of Education, J. A. Hargraves, care of City Water Co., Chattanooga, chairman of both boards, awarded contract to T. S. Moudy, James Building, Chattanooga, at \$18,843 to erect combined two-story brick high and grammar school building recently mentioned; pressed brick facing; composition roof; study hall, 51x66 feet; classrooms, 23x30 feet; steam heat; heating contract not let; architects, Adams & Alsop, Chamberlain Building, Chattanooga.

Hurlock, Md.—Dorchester county will issue \$9000 of bonds for erection of high-school building. Address County Commissioners.

Laurel, Miss.—City awarded contract to Norris & Gardner, Laurel, for erection of school building; two stories; 10 rooms; tile roof; cost about \$30,000; plans by DeBuys, Churchill & Labouisse, Hibernia Bank Building, New Orleans, La.; \$30,000 of bonds will be issued.

Lexington, Va.—City has voted \$30,000 of bonds for erection of school building. Address The Mayor. (Recently mentioned.)

Limestone, Tenn.—Bethesda Academy, Rev. Wm. T. Morgan, president, will expend from \$125,000 to \$150,000 in erection and equipment of industrial school and orphanage buildings recently mentioned; architect, C. G. Mitchell, and contractors, Shaffer & Young, all of Johnson City, Tenn. Buildings, on which construction is begun, include academic building, 109x89 feet, brick, three stories; girls' building and boys' building, each two stories, frame, 80x100 feet; central kitchen and dining hall, brick, 150x90 feet; boys' and girls' industrial buildings, each 50x100 feet, two stories; five or six small cottages; steam heat; electric lighting; kitchen equipment. (See "Machinery Wanted.")

Little Rock, Ark.—Albert D. Cohn, chairman Committee on New Buildings, will receive bids until June 27 for two two-story

and-basement brick, slate-roof school buildings; plans on file at office of Charles L. Thompson, architect, 504 Southern Trust Building, and Gibb & Sanders, architects, Little Rock; separate bids will be received upon plumbing, heating and wiring; each bid on general contract to be accompanied by certified check for \$500, payable to W. M. Kavanaugh, President School Board; each bid on plumbing, heating and wiring by certified check for 5 per cent. of bid; each bidder will be required to state in bid amount to be added to or deducted therefrom for use of selected white lime and sand brick in lieu of those specified; building to be completed by September 1. (Recently mentioned. See "Machinery Wanted.")

Martin, Tenn.—Hall-Moody College will erect \$40,000 brick building on campus.

Meridian, Texas.—City will award contract July 6 at office of J. J. Lumpkin, Meridian, for erection of \$25,000 training-school building recently mentioned; stone; steam heating; plumbing; bids asked; plans by C. H. Page, Jr., Austin, Texas.

Montgomery, Ala.—City is considering issuance of \$100,000 of bonds for school purposes. Address The Mayor.

Nashville, Tenn.—City Public School Board has had plans prepared by G. L. Lockhart, Stahlman Building, Nashville, for fireproof school building recently mentioned; two stories and basement; gray brick; stone foundation; reinforced concrete floors, ceilings and stairways; tile roof; steam heat; electric wiring; plumbing; domestic science and manual-training apparatus to be installed.

New Orleans, La.—Board of Administration Tulane University, Robert Miller Walmsley, chairman, will invite plans for \$40,000 gymnasium building; Charles Janvier, chairman real-estate committee.

North, S. C.—School Board, District No. 34, will open bids July 1 for erection of school building recently noted; five rooms; steam heat; electric lighting; cost \$6000; plans by C. Gadsden Sayre, Anderson, S. C.; bids are asked; J. L. Reeves, clerk of Board. (See "Machinery Wanted.")

Park, R. Station, Knoxville, Tenn.—City has had plans prepared by George F. Barber, Knoxville, for proposed addition to building at Park City; present building will form west wing of new structure, and entire building will have frontage of 216 feet; wings will be 50 feet deep; central part 62 feet; whole building will be two stories and basement; central part three stories, with bell tower; colonial porch two stories, with balcony for third story; new structure will be of common brick; slate roof; interior to be finished in yellow pine; colonnade under cover will connect three entrances.

Pinewood, S. C.—Bids opened June 15 for erection of school building; plans on file at office of Shand & Lafaye, architects, Columbia, S. C. Bids must state date for completion of contract, be accompanied by certified check equal to 3 per cent. of amount of bid, and addressed to P. M. Salley, clerk of board of trustees, Pinewood, S. C. (Recently mentioned.)

Pontotoc, Miss.—City will vote on \$25,000 bond issue for erection of school building. Address The Mayor.

Rockville, Md.—Montgomery county will erect school building at Woodside; eight rooms; cost about \$12,000. Address County Commissioners.

Russellville, Ky.—City will issue \$12,500 of bonds for erection of school building. Address The Mayor.

Sale Creek, Tenn.—Hamilton County Boards of Education, J. A. Hargraves, care of City Water Co., Chattanooga, Tenn., joint chairman, will receive bids from June 15 until June 25 for erection of combined high and grammar school building; two stories; brick; composition roof; pressed brick facing; classrooms, first floor, 23x30 feet; study hall, 51x66 feet; architects, Adams & Alsop, Chamberlain Building, Chattanooga.

Searcy, Ark.—City will open bids July 1 for erection of school building; certified check for \$300; J. A. Marsh, secretary School Board. (Recently mentioned.)

Spartanburg, S. C.—Wofford College, Dr. H. N. Snyder, president, will erect library building and dormitory to cost \$100,000.

Spray, N. C.—Spray School of Technology will erect buildings; J. P. McKee, Laurinburg, N. C.; R. D. Caldwell, Lumberton, N. C.; J. S. Efrid, Albemarle, N. C., trustees.

Stephenville, Texas.—John Tarleton College dormitory building, recently mentioned, will be of mill construction; brick veneered; 109x117 feet; steam heat; electric lighting; cost \$15,000; architect, S. P. Herbert, Waco, Texas; contractors, Holderness & Oates, Stephenville.

St. Louis, Mo.—Rankin Industrial School will erect building.

Sunny Side (not a postoffice), Tenn.—Hamilton County Board of Education, J. A. Hargraves, care City Water Co., Chattanooga, Tenn., chairman, will receive bids from June 15 to June 25 for erection of \$6000 grammar-school building; one story; four rooms; brick; composition roof; architect, H. L. Huntington, News Building, Chattanooga, Tenn.

Tarboro, N. C.—City will erect \$30,000 school building. Address The Mayor.

Thornton, Ark.—City is having plans prepared by Gibbs & Sanders, Little Rock, Ark., for \$5000 school building.

Walter, Okla.—City has voted \$35,000 of bonds for erection of proposed school building. Address The Mayor.

Washington, D. C.—Mrs. Marguerite du Pont Lee awarded contract to William P. Lipscomb & Co., 1405 P street, Washington, for erection of kindergarten and assembly-room for boys at West Washington; three stories; 51x54 feet; mill construction; steam heat; electric lighting; cost \$24,000; plans by Mottu & White, 611 Professional Building, Baltimore, Md.

Wewoka, Okla.—School District No. 22 has not engaged architect to prepare plans for school building recently noted; as proposed, structure will be fireproof, with steam heat; cost \$25,000; H. E. Kanoga, member School Board.

Wheeling, W. Va.—City awarded contract to W. H. Batson, Moundsville, W. Va., at \$50,300, for construction of Union school, and to Stanton Heating Co., Martins Ferry, Ohio, at \$6290, for installation of heating system; building to be of brick; stone foundations and trimmings; 16 rooms; fireproof halls and stairways; hot-air heating; electric and gas lighting; gas engine for water; cost of completed building \$60,000; plans by Giesey & Faris, Wheeling. (See "Machinery Wanted.")

### THEATERS

Anadarko, Okla.—Anadarko Opera House Co., incorporated with \$6000 capital stock by W. F. Dietrich and Joseph Smith, both of Anadarko; J. M. Phillips, Verden, Okla.

Tusculum, Ala.—W. F. Miller is promoting organization of company with \$15,000 capital stock to erect opera-house.

### WAREHOUSES

Baltimore, Md.—Baltimore, Chesapeake & Atlantic Railway, A. C. Shand, Philadelphia, Pa., chief engineer, is having plans prepared for two-story office building and pier shed on Pier 1, Pratt street.

Baltimore, Md.—Louis Levi, 610 American Building, Baltimore, has distributed plans for proposed alterations and improvements to triangular four-story warehouse at Lombard, Howard and Liberty streets, owned by Aaron Straus. First floor will be used for stores, and upper floors will also be improved. Those who will bid are Benjamin F. Bennett, 123 South Howard street; Charles L. Stockhausen, 1 National Marine Bank Building; George Bunnecke & Sons, 305 St. Paul street; James F. Farley, 43 Franklin Building; Henry L. Maas, 906 Alsquith street; Joseph Schamberger, 2122 East Baltimore street, all of Baltimore; estimates to be submitted June 22.

El Paso, Texas.—Thorne Storage & Distributing Co. will rebuild warehouse reported burned at loss of \$37,000.

Midland City, Ala.—Farmers' Union will organize company with \$4000 capital stock to erect warehouse.

Montgomery, Ala.—City contemplates issuing \$10,000 of bonds for erection of municipal warehouse and wharf. Address The Mayor.

Norfolk, Va.—Planters' Peanut Storage Warehouse Co. incorporated with \$35,000 capital stock; R. I. Bosman, president; R. A. Dodson, vice-president and treasurer; W. M. Bosman, secretary.

### RAILROAD CONSTRUCTION

#### RAILWAYS

Athens, Ga.—The Athens Terminal Co., it is reported, has resumed construction on its terminals, which will be used by the Seaboard Air Line and the Gainesville Midland Railroad.

Augusta, Ga.—The Southern Railway, it is reported, contemplates extending the Augusta Southern Railroad from Tennille to Macon, Ga., 45 miles. W. H. Wells is engineer of construction at Washington, D. C.

Baltimore, Md.—The Maryland & Pennsylvania Railroad Co. has let a grading contract to John F. Potts & Son for grading

yards on the Falls road in Baltimore. About 50,000 cubic feet of earth are to be moved.

Chipley, Fla.—President W. M. Gordon of the Birmingham, Columbus & St. Andrews Bay Railway is quoted as saying that additional grading contracts will be let next fall. W. H. Edinger is chief engineer at Chipley, Fla. Line will be 360 miles long, from St. Andrews Bay, Fla., via Columbus, Ga., to Birmingham, Ala.

Cleburne, Texas.—Application has been made for a street-railway franchise by H. M. Hyatt of Kansas City, Mo., and others. This is incidental to a plan for an interurban electric line to connect Waco, Waxahachie, Cleburne and Fort Worth.

Dante, Va.—Reported that the Carolina, Clinchfield & Ohio Railroad is surveying for a line along Pound river to reach coal mines. M. J. Caples is vice-president, general manager and chief engineer at Johnson City, Tenn.

Gould, Ark.—S. G. McClellan, general manager of the Gould Southwestern Railroad, is reported as saying that contract will be let immediately for an extension of 10 miles from Webber to Star City, Ark. E. C. Buchanan is chief engineer at Little Rock, Ark. T. S. Estabrook is vice-president, Fisher Building, Chicago, Ill.

Guthrie, Okla.—An officer of the Atchison, Topeka & Santa Fe Railway informs the Manufacturers' Record that there is no truth whatever in the report that the company had acquired the Guthrie, Fairview & Western Railway of Oklahoma.

Huntsville, Ala.—Tracy W. Pratt, vice-president of the Nashville and Huntsville Railway, is reported as saying that the projected extension to Birmingham, Ala., has been financed and will be built when the Nashville & Huntsville road is completed.

Leesville, La.—A letter to the Manufacturers' Record says that L. F. French, chief engineer, and a corps of men are surveying for the proposed Alexandria, Leesville, Lufkin & Western Railway. Headquarters at Leesville. Line will connect Alexandria and Leesville, La., and Lufkin, Texas.

Little Rock, Ark.—An official letter to the Manufacturers' Record says that the question of a branch of the Missouri & North Arkansas Railroad to Little Rock, Ark., has not been definitely decided beyond authorizing a preliminary survey and investigation as to construction expense and probable operating results.

Little Rock, Ark.—A movement is under way to build the proposed Little Rock and Pine Bluff electric railway projected by the Little Rock & Pine Bluff Traction Co. The committee on the project is composed of Dr. O. P. Robinson, W. B. Smith, C. N. Alexander and J. M. Rose. Line will be 50 miles long. W. H. Waugh is engineer.

Macdonald, W. Va.—The White Oak Railway Co., S. Dixon, president, will, it is reported, issue \$400,000 of bonds for improvements and extensions. The line when completed will reach from Glen Jean via Scarbro and Lower Loup creek to Mount Carbon, W. Va.

Maryville, Tenn.—Reported that 25 miles of track are practically completed on the Maryville and Bushnell extension of the Southern Railway, this being between Maryville and Chilhowee via Montvale, Ethelwyn, Alleghany, Tallassee, Sunline and McMurray.

Mobile, Ala.—The New Orleans extension of the Mobile, Jackson & Kansas City Railroad, it is reported, will be 141 miles long, from Overt, Miss., to New Orleans, La. The New Orleans, Mobile & Chicago Railroad Co., with \$7,500,000 capital, has been organized to build the line. The directors are J. C. Rich, president; W. F. Owen, vice-president; G. W. Cary, secretary and treasurer; W. H. McIntosh and H. M. Hood. Mr. Owen is general manager at Mobile. L. S. Berg, president of the Mobile, Jackson & Kansas City Railroad, is reported as saying that the extension north to the Ohio river will first be built to a point somewhere between Thebes, Ill., and Evansville, Ind. Plans have been practically completed for this as well as the New Orleans line. Another officer is reported as saying that the extension to New Orleans will be completed and in operation two years hence.

Monroe, La.—J. M. Parker, general manager of the Arkansas, Louisiana & Gulf Railway is reported as saying that about 40 miles of track are completed northward from Monroe to the State boundary, but that construction will be pushed on into Arkansas.

New Orleans, La.—The Texas & Pacific Railway, it is reported, will build a new yard and make other extensive improvements at Baton Rouge Junction and will establish a new town to be called Addis. B. S. Wathen is chief engineer at Dallas, Texas.

Oklahoma City, Okla.—John W. Burchinal is reported as saying that the Oklahoma City, Shawnee & El Reno Rapid Transit Railway Co. will begin construction when right of way is secured, possibly by September 15. Line will be about 70 miles long from Shawnee to Oklahoma City, Spencer, Yukon and El Reno. Headquarters, 108½ Grand avenue, Oklahoma City, Okla. W. M. Sawyer is president; J. A. Niblo, vice-president; C. A. Huber, secretary, and S. L. Niblo, treasurer. Capital \$1,400,000.

Paducah, Ky.—Construction contracts are reported let for the Kentucky and Ohio River Interurban Railroad Co. Line is to be 39 miles long, from Paducah, Ky., to East Cairo, Ky., and Cairo, Ill. The general contractor is the Western Engineering & Construction Co., 605 Globe Building, Minneapolis, Minn. John J. Freundlich is general manager. Simms Bros. of Thebes, Ill., will do the grading; Forbush & Stotlar of Benton, Ill., will build the bridges, 18 in number, and the General Electric Co. of New York will furnish the electrical equipment. J. H. Jolliffe of Indianapolis, Ind., is the chief engineer.

Paragould, Ark.—A movement is reported under way to build an interurban electric railway from Paragould to St. Francis, Ark., via Marmaduke, Rector, Greenway and Pig-gott. The Mayor may be able to give information.

Piedmont, W. Va.—The Potomac Valley Railway Co. has secured franchises and will build a line connecting Piedmont and Keyser, W. Va., Luke and Bloomington, Md., as well as New Creek, W. Va. L. S. Kirker is engineer and Anderson & Fickelner are attorneys.

Poplar Bluff, Mo.—The St. Louis, Iron Mountain & Southern Railroad (Missouri Pacific System), it is reported, will rebuild its yards at Poplar Bluff, besides building a double track. E. F. Mitchell is engineer of construction at St. Louis, Mo.

Wasioto, Ky.—The Kentenia Railroad Co. will, it is reported, build a line from Wasioto, Ky., along Cumberland river and Clover fork to Keokee, Va. T. J. Asher of Wasioto and W. W. Duffield of Harlan, Ky., are reported interested. Charles Henry Davis of South Yarmouth, Ky., is president of the Kentenia Corporation. Mr. Asher informs the Manufacturers' Record that he does not know of a road named Kentenia Railroad.

Wellsburg, W. Va.—The Wellsburg & Bethany Electric Railway Co. has begun operation of its line, about seven miles long. S. George of Wellsburg is president.

Wheeling, W. Va.—The Manufacturers' Record is informed that the electric railway proposed by the Wheeling & Western Traction Co. will connect Wheeling, W. Va., with several places in Ohio, including Uhrichsville, Bridgeport, Martins Ferry, Cadiz, Cole-rain, Harrisville, Jewett, Bowerston and Scio, about 40 miles of line. A. E. Townsend of Cleveland, Ohio, is president and general manager, and other Cleveland men are also interested. Route is not yet decided nor any contracts let.

Wichita Falls, Texas.—Engineers are reported to be in the field on preliminary surveys for an extension of the Abilene & Northern Railroad, which is part of the Wichita Valley line. Morgan Jones of Seymour, Texas, is president of the Wichita Valley Railway.

Winona, Mo.—Mr. J. B. White, secretary, treasurer and general manager of the Missouri Lumber & Land Exchange Co., Kansas City, Mo., with mills at Winona, informs the Manufacturers' Record that the Salem, Winona & Southern Railroad, recently incorporated, will be operated for a long time only as between Winona and West Eminence, which is 1½ miles from Eminence, the county seat of Shannon county.

### STREET RAILWAYS

Chattanooga, Tenn.—The Chattanooga Street Railways Co. contemplates building an extension from Main street to Rossville along Rossville avenue and private right of way. D. J. Duncan is general manager.

Florence, Ala.—The Sheffield Company, it is reported, contemplates building a street-railway extension in Florence. J. B. McClary is general manager at Sheffield, Ala.

Huntsville, Ala.—Plans have been approved to extend the street railway of the Huntsville Light & Power Co. to the Fair Grounds, one mile, work to begin soon. F. N. Lawton is general manager.

Morgantown, W. Va.—The South Morgantown Traction Co.'s contract awarded to Frank Alfery is for an extension of two miles to the poorhouse farm. The extension will cost about \$60,000.

San Angelo, Texas.—E. E. Bailey, president and general manager of the Angelo Power &

Traction Co., writes the Manufacturers' Record that the company expects to have one mile of line in operation by September 7. About September 15 it will be in the market for material for further construction. It has already purchased rails for three miles of track. J. H. Ransom is vice-president and assistant general manager; W. D. Fuller, general superintendent; T. M. Vaughan, secretary; John W. Harris, treasurer.

Tampa, Fla.—The Tampa-Sulphur Springs Traction Co., will, it is reported, shortly begin tracklaying on its line, 10 carloads of rails having been purchased.

Uvalde, Texas.—A street-railway franchise has been granted to M. M. McFarland of San Antonio, Texas; J. C. Kirby and John T. Smith of Austin, Texas; construction to begin within four months and line to be two miles long and operated by gasoline motor cars.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—A. V. Kaiser & Co., 739 Drexel Building, Philadelphia, Pa., want second-hand modern air compressor, to give approximately 4000 cubic feet air; suitable for 150 pounds initial steam pressure against 30 to 50 pounds air pressure; condensing type, compound steam.

Air Compressor.—Salsbury Supply & Commission Co., Salsbury, N. C., in market for second-hand air compressor of three or four drills capacity.

Asbestos Paper.—Obion Cooperage Co., Obion, Tenn., in market for asbestos paper for 35 squares.

Bank Furniture.—C. B. Willing, Morristown, Tenn., wants prices on bank partitions and furniture.

Boiler.—John P. Boyce, Commissioner of Supplies, St. Louis, Mo., will receive bids until June 19 for furnishing workhouse with one water-front portable boiler; specifications on file in office of Mr. Boyce, where blanks and other information can be obtained; certified check for \$100; boiler to be delivered within 20 days from date of order.

Boilers.—Xavier A. Kramer, Magnolia, Miss., wants prices on boilers for water-works and sewer system.

Boilers.—Holston Box & Lumber Co., Knoxville, Tenn., wants prices on two 100-horse-power boilers.

Boilers.—See "Water-works."

Boilers.—See "Electric-light Plant."

Boilers.—Rich Hill Sewer Pipe Co., Rich Hill, Mo., wants prices on two boilers of 130-horse-power each.

Boilers.—C. N. Williams & Co., Carthage, Mo., wants prices on boilers.

Box Machinery.—Leon Edmundson, Raymond, Ga., wants catalogues and prices on box machinery.

Bricks.—Bids will be received at office of Commissioners of District of Columbia (Henry B. F. Macfarland, Jay J. Morrow and Henry L. West), Washington, D. C., to furnish red sewer brick for use during fiscal year ending June 30, 1909. Blank forms of proposal, specifications and information may be obtained at office of property clerk, Room 30 District Building.

Bricks.—R. G. Harrison, Fayetteville, N. C., wants prices on vitrified paving brick.

Bridge Construction.—Washington County Commissioners, Hagerstown, Md., will open bids June 30 for building reinforced concrete bridge and approaches over Antietam creek at Hartle's Ford, near Leitersburg, Md.; plans and specifications at office of Commissioners at Hagerstown; certified check or draft for \$500; John E. Wagaman, clerk.

Bridge Construction.—Wythe County Board of Supervisors, J. H. McGavock, chairman, Wytheville, Va., will open bids July 6 for construction of iron bridge over Reed creek, near Max Meadows, Va.; structure to be about 150 feet long and 16 or 18 feet wide.

Bridge Construction.—Board of Control, Norfolk, Va., will open bids June 30 for construction of reinforced concrete bridge about 100 feet long and 52 feet wide; plans on file at office of W. T. Brooke, City Engineer, and may be obtained by depositing \$5; bidding blanks may be obtained from same office on request; certified check \$500.

Bridge Construction.—Board of Oconee County Commissioners, Walhalla, S. C., will open bids July 7 for construction of iron bridge over Little River, at the Morgan bridge site; plans by A. D. McClain, Spartanburg, S. C., on file at office of Commissioners at Walhalla; D. F. McAllister, supervisor, Westminster, S. C.

Bridge Construction.—Bryan County Commissioners, J. M. Abbott, chairman, Durant, Okla., will open bids July 9 for construction of suspension bridge over Island Bayou, about 8½ miles from Durant; plans and specifications on file in office of County Commissioners; certified check for \$200.

Building Materials.—W. H. Batson & Co., Moundsville, W. Va., wants prices on yellow pine and hemlock lumber, sash, doors, maple flooring, frames, structural iron and fire-proofing.

Briquette Machinery.—E. A. Sammons Company, Ltd., New Orleans, La., wants names and addresses of manufacturers of machinery for making briquettes.

Building Material.—J. J. Keller & Co., Rock Hill, S. C., want catalogues and dealers' prices on building materials.

Building Materials.—Xavier A. Kramer, Magnolia, Miss., wants prices on building materials.

Button Machinery.—R. P. Lockett, 723 Camp street, New Orleans, La., wants to correspond with manufacturers of machinery for making pearl buttons from mussel shells.

Canners' Supplies.—Thompson Canning Co., Coyle, Okla., wants prices on cans and other canning supplies.

Cars.—See "Mining Equipment."

Casks.—Westover Paper Co., Richmond, Va., wants names and addresses of manufacturers of heavy veneer watertight casks.

Cement, etc.—Bids will be received at U. S. Engineer Office, 23d and K streets N. W., Washington, D. C., for furnishing and delivering Portland cement, sand, broken stone, gravel and reinforcing steel until June 24; information on application; E. J. Dent, First Lieutenant, Engineers.

Cold-storage Plant.—Hemman-Bessonet Company, Temple, Texas, will be in market for machinery for cold-storage plant.

Column Clamps.—Chas. E. Zimmerman, Syracuse Corner Block Factory, Syracuse, N. Y., in market for column clamps.

Conveyors.—See "Elevators and Conveyors."

Cornice.—C. B. Willing, Morristown, Tenn., wants prices on galvanized-iron cornice.

Creosote Machinery.—Tombligbee Valley Development Co., Aberdeen, Miss., wants names and addresses of manufacturers of creosote machinery.

Crushing Machinery, etc.—Stewart Supply Co., Gray Summit, Mo., wants prices on crushers, rolls, etc.

Desks.—Delos W. Sorrell, chairman Board of Education, Durham, N. C., wants prices on school desks.

Electrical Equipment.—C. N. Williams & Co., Carthage, Mo., wants prices on electrical equipment.

Electric-light Plant.—Bethesda Academy, W. T. Morgan, president, Limestone, Tenn., wants electric-light plant for school buildings costing from \$125,000 to \$150,000.

Electric-light Plant.—Alabama Girls' Industrial School, Auburn, Ala., will purchase two boilers 100 horse-power each, 115-horse-power high-speed engine, 75-kilowatt engine type, direct current generator and marble switch-board; bids will be received until June 20 at office of chairman of building committee, Col. S. W. John, 2028½ First avenue, Birmingham, Ala.; detailed specifications may be seen at office of chairman or at office of president, Montevallo, Ala.; no copies for distribution.

Electric Motors.—See "Miscellaneous Supplies."

Electric Power Plant.—D. M. Kimbrough, chairman building committee, University of Mississippi, Oxford, Miss., will receive bids until June 30 for building complete electric power-house and steam-heat distributing system for University of Mississippi at Oxford; plans and specifications at office of Mr. Kimbrough, Oxford, and of consulting engineer, F. G. Proust, 174 Randolph Building, Memphis, Tenn.

Electric Wiring.—See "Heating Apparatus."

Elevators.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City,

Okl., wants prices on double elevators for five-story building.

Elevators and Conveyors.—Frederick Cotton Oil & Manufacturing Co., Frederick, Okla., wants elevators and conveyors.

Engine.—Holston Box & Lumber Co., Knoxville, Tenn., wants prices on 150-horse-power Corliss engine.

Engine.—See "Electric-Light Plant."

Engine.—Rich Hill Sewer Pipe Co., Rich Hill, Mo., wants prices on 350-horse-power engine.

Engines.—See "Water-works."

Engines.—C. N. Williams & Co., Carthage, Mo., wants prices on engines.

Evaporators.—F. F. Farrar, care of Farrar Lumber Co., Dalton, Ga., wants to correspond with manufacturers of fruit evaporators.

Evaporators.—B. D. Snyder, Box 34, Hedgesville W. Va., wants addresses of manufacturers of fruit evaporators.

Excavating Bucket.—See "Hoisting Equipment."

Excelsior Machinery.—Mr. Hewett of Black & Hewett Company, Montgomery, Ala., wants names and addresses of manufacturers of excelsior machinery.

Fan.—Big Hill Coal Co., W. E. Taylor, superintendent, Heidelberg, Ky., wants prices on eight-foot mine fan, gasoline power.

Fireproofing.—See "Building Materials."

Flooring.—See "Building Materials."

Forges.—See "Manufactures."

Furniture.—Union County Land Co., Box 255, El Dorado, Ark., wants catalogues and prices of office furniture.

Furniture Machinery.—See "Woodworking Machinery."

Gas Engine and Producer.—Hemman-Bessonne Company, Temple, Texas, wants prices on gas engine and producer.

Gasoline Street Car.—Jos. E. Bowen, 901 Bank of Commerce Building, Norfolk, Va., wants gasoline street car seating 40, capacity 40 to 50 miles per hour.

Hardware.—See "Column Clamps."

Hardware.—See "Manufactures."

Heater.—Xavier A. Kramer, Magnolia, Miss., wants prices on heater for water-works and sewer system boilers.

Heating Apparatus.—Albert D. Cohn, chairman committee on new buildings, Little Rock, Ark., will receive separate bids until June 27 for heating, plumbing and wiring for two school buildings to be erected at Little Rock; each bid to be accompanied by certified check for 5 per cent. of proposal. (See "Schools.")

Heating Plant.—Bethesda Academy, W. T. Morgan, president, Limestone, Tenn., wants steam-heating plant.

Heating Plant.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City, Okla., wants prices on steam or hot-water heating apparatus for five-story office building.

Heating Plant.—G. A. Lindemann, City Secretary, Bartlett, Texas, wants bids on heating plant for schoolhouse (hot-air or individual stove ventilating system).

Heating Plant.—J. L. Reeves, clerk School District No. 34, North, S. C., wants bids on steam-heating plant for \$6000 school building.

Heating System.—See "Electric Power Plant."

Hoisting Equipment.—Griffin Construction Co., Atlanta, Ga., wants prices on 12-horse-power double-cylinder, double-drum hoisting engine; also wants small clam-shell or orange-peel excavating bucket.

Hoists.—Stewart Supply Co., Gray Summit, Mo., wants prices on hoists.

Inclined Plane.—See "Mining Equipment."

Iron Shear.—P. D. de Pool, Obispo No. 7, Havana, Cuba, wants large iron-cutting shear.

Ironworking Machinery.—See "Rolling Mill."

Jetty Construction.—See "Seawall."

Kitchen Equipment.—Bethesda Academy, W. T. Morgan, president, Limestone, Tenn., wants complete kitchen outfit to cook for 500.

Laundry Plant.—M. B. Edwards, Rock Hill Steam Laundry, Rock Hill, S. C., wants steam-laundry equipment.

Iron Planer.—Salem Iron Works, Winston-Salem, N. C., wants small iron planer; second-hand in good condition will do.

Leather.—Hijos de Eusebio Rochelt, Bilbao, Spain, wants agency for artificial leather.

Levee Work.—Bids will be received until July 3 for construction of about 110,000 cubic yards of levee enlargement work, approximately two miles in length, near Bledsoe,

Ark.; information, blank forms, etc., furnished on application to B. G. Covington, chief engineer, 168 Randolph Building, Memphis, Tenn.; W. B. Miller, president of Levee Board, West Memphis, Ark., P. O. Memphis, Tenn.

Lighting Fixtures.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City, Okla., wants prices on electric and gas lighting fixtures for five-story office building. Lubricators.—See "Manufactures."

Macadamizing and Grading.—Bids will be received at Courthouse, Clinton, Tenn., until July 3 for construction of about 38 miles of road in Anderson county and \$5000 worth of work in Clinton—grading and macadamizing. Pike road work is in sections, ranging from 1/2 to about 1 1/4 miles; profiles and specifications on file at office of trustee in court-house; certified check for 5 per cent. of bid; J. K. P. Wallace, chairman of commission.

Machinery Tools.—See "Plow-works Machinery."

Manufactures.—Hijos de Jose Eusebio Rochelt, Bilbao, Spain, wants data and prices on, with a view of importing, builders' hardware, mechanics' tools, saws, pumps, forges, jackscrews, emery stone for saws, footwear, casings and intestines, lubricators, oleins, butterlines, etc.

Metal Frames and Sash.—C. B. Willing, Morristown, Tenn., wants prices on two metal frames and sash.

Miniature Railroads.—See "Railroads."

Mining Equipment.—G. B. Halyburton, Stony Point, N. C., wants machinery for mining asbestos.

Mining Equipment.—Baker Coal & Coke Co., Rockwood, Tenn., wants mine cars, screws and tippie, 40 and 16-pound rails, etc., and gravity inclined plane equipment.

Mining Machinery.—See "Fan."

Miscellaneous Supplies.—Bids will be received at office of H. F. Hodges, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until July 6 for furnishing steel, iron, culvert pipe, condenser tube, dredge dipper, steel rails, angle bars, tie plates, track bolts and spikes, frogs, switches, switch stands, nut locks, machine and key bolts, motor car, electric motors, etc. Blanks and general information relating to Circular No. 448 obtainable from above office or offices of assistant purchasing agent, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal.; and 410 Chamber of Commerce Building, Tacoma, Wash.; also from U. S. Engineer office in following cities: Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Office Furniture.—See "Furniture."

Oil-mill Machinery.—Frederick Cotton Oil & Manufacturing Co., Frederick, Okla., wants prices on linters and separators.

Paving.—Board of Public Improvements, A. J. O'Reilly, president, and W. B. Dryden, secretary, new City Hall, St. Louis, Mo., will open bids June 26 for sidewalks paving from letting No. 9069 to letting No. 9096; pavements to be five and six feet wide and laid with granite; separate proposal must be made for each letting on blank form furnished by Board of Public Improvements; plans and classes of specifications and forms of contracts at office of Board of Public Improvements and Street Commissioner.

Paving.—Council Committee on Streets will receive bids at office of H. L. Shaner, City Engineer, Lynchburg, Va., until June 20 for constructing 2100 square yards granolithic sidewalks and 1000 cubic yards excavation; certified check for \$250, payable to A. R. Long, chairman Committee on Streets. Plans can be seen, specifications and forms of contract obtained at office of Mr. Shaner.

Paving.—Separate sealed proposals addressed to Baltimore (Md.) Board of Awards, care of J. Sewell Thomas, City Register, will be received until June 24 to grade, curb, gutter and pave with granite blocks Butcher's lane from North avenue to Pennsylvania avenue, and for paving, grading and curbing with bituminous concrete pavement 24th street from Maryland avenue to Charles street. Specifications and proposal sheets furnished on application to office of Commissioners for Opening Streets, James H. Smith, president, Hoen Building, where plans and profiles can be seen. Eugene F. Rodgers, clerk to Board.

Paving.—Board of Public Works, H. F. Van Dusen, chairman, Chattanooga, Tenn., will open bids June 23 for paving with vitrified brick Pine, Poplar, Hotel, Stanton, Carr, Alabama and William streets; blank forms for proposal and specifications furnished on application to clerk of board at City Hall;

certified check \$500, payable to T. J. Gillespie, City Treasurer.

Paving Bricks.—See "Bricks."

Pearl Buttons.—See "Button Machinery."

Pen Points.—E. E. Morlan, Garden City, Mo., wants addresses of manufacturers of, with view to placing order for, composition metal non-corrosive pen points.

Pipe and Hydrants.—See "Water-works Supplies."

Piping.—See "Terra-cotta Piping."

Piping.—Xavier A. Kramer, Magnolia, Miss., wants prices on cast-iron water pipe and sewer pipe.

Piping and Special Castings.—See "Water-works."

Plow-works Machinery.—Fayetteville Plow Works, Fayetteville, Tenn., wants equipment of machinery to manufacture shovel and cultivator.

Plumbing.—See "Heating Apparatus."

Portable Boiler.—See "Boiler."

Pneumatic Tubes.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City, Okla., wants quotations on pneumatic tubes.

Producer-gas Plant.—See "Gas Engine and Producer."

Pump.—Xavier A. Kramer, Magnolia, Miss., wants prices on pump for water-works and sewer system.

Pumps.—See "Water-works."

Pumps.—See "Manufactures."

Pumps.—Rich Hill Sewer Pipe Co., Rich Hill, Mo., wants prices on one hot-water and one cold-water pump.

Railroads.—D. R. Creecy, Jr., Danville, Va., wants addresses of manufacturers of miniature railroads.

Rails.—Jos. E. Bowen, 901 Bank of Commerce Building, Norfolk, Va., wants 10 miles 50-pound relaying steel rails, delivered common points in Texas.

Rails.—A. V. Kaiser & Co., 739 Drexel Building, Philadelphia, Pa., want one and one-half miles of 70 or 80-pound relaying rails for Altoona (Pa.) delivery.

Rails.—Baker Coal & Coke Co., Rockwood, Tenn., wants 40 or 60-pound rails. (See "Mining Equipment.")

Rails.—Obion Coopers Co., Obion, Tenn., in market for 300 feet of 15-pound T rails.

Railway Equipment.—See "Gasoline Street Car."

Railway Supplies.—See "Miscellaneous Supplies."

Road Construction.—County Commissioners of Anne Arundel county, Annapolis, Md., will open bids June 23 for improving public highway through Brooklyn, known as Light-street road, No. 2; work includes curbing and paving with vitrified brick of about one-third of a mile of road, according to plans and specifications at office of County Commissioners at Annapolis or Maryland Geological Survey, Baltimore, Md.; proposals to be made on blank forms furnished by State Geological Survey Commission, to be obtained through its Baltimore (Md.) office; certified check \$200; W. W. Webb, clerk.

Rock Drill Barge.—Bids will be received at office of H. F. Hodges, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until July 3 to furnish one submarine rock drill barge. Blanks and general information relating to Circular No. 447 obtainable at above office or offices of assistant purchasing agents, 24 State street, New York; custom-house, New Orleans; 1086 North Point street, San Francisco, Cal.; and 410 Chamber of Commerce Building, Tacoma, Wash.; also from U. S. Engineer office in following cities: Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Rolling Mill.—P. D. de Pool, Obispo No. 7, Havana, Cuba, wants second-hand rolling mill, from 14 to 18 inches diameter, for hot iron; also large iron-cutting shear.

Rolls.—See "Crushing Machinery, etc."

Roofing Iron.—Obion Coopers Co., Obion, Tenn., in market for 35 squares of No. 27-gauge V-crimp galvanized roofing iron.

School Furniture.—See "Desks."

Seawall.—Joseph T. Davidson, Quartermaster, Fort Moultrie, S. C., will receive bids until June 24 for constructing reinforced concrete seawall and riprap jetties at Fort Screven, Ga. Information on application; certified check, \$25 to secure plans, etc.

Sewer Construction.—Commissioners of Sewerage, Equitable Building, Louisville, Ky., will receive bids until June 24 for construction of sewer known as section "A" of 25th-street sewer, contract No. 8 of compre-

hensive system of sewerage. Work consists mainly of sewer constructed of reinforced concrete 5 feet 10 inches wide by 5 feet 6 1/2 inches high, 1993 feet long, and 5 feet 6 inches wide by 5 feet 2 inches high, 1740 feet long, including connecting chamber. Principal items in engineer's estimate of work are: Excavation, depth of cut, 14 feet to 24 feet, 3762 linear feet; concrete, 1750 cubic yards; reinforcing steel bars, 92,000 pounds. Plans and specifications at office of commissioners and of consulting engineer, Harrison P. Eddy of Metcalf & Eddy, 14 Beacon street, Boston, Mass. Bids to be accompanied by certified check for about 7 per cent. of total amount of bid or a "bidder's bond," as described in proposal. P. L. Atherton, chairman, and Charles P. Weaver, secretary-treasurer of board. J. B. F. Breed, chief engineer.

Sewer Construction.—Board of Public Works, John W. Flenniken, chairman, Knoxville, Tenn., will receive bids until June 18 for extension of First creek sewer; profiles and specifications at office of City Engineer.

Sewer Construction.—R. L. Alexander, chairman Board of Improvement District No. 1, Paragould, Ark., will receive bids until July 1 for furnishing labor, equipment, material and supplies for equipping and installing complete sewerage system and septic tank, according to plans, specifications and instructions to bidders, on file in office of chairman at Paragould, or of consulting engineers, W. K. Palmer Company, 718 Dwight Building, Kansas City, Mo. Proposals are to cover following items: 32,245 linear feet of trench between 4 feet and 10 feet deep; 1250 linear feet of trench not over 10 feet deep; 33,355 linear feet of sewer pipe, ranging from 8 inches to 15 inches in diameter; 270 linear feet of cast-iron pipe, 8 inches and 10 inches in diameter; 1014 Y-connections, from 8 inches to 15 inches; 104 manholes; 17 flush tanks; 10 lampholes; 1 septic tank, complete with pump, etc.; installing of all equipment and constructing system complete, according to the plans and specifications. Plans and specifications can be obtained from engineers on deposit of \$5; prospective bidders are invited to send representative to office of engineers, where facilities will be afforded for preparing proposals; certified check \$3000; for further information address Mr. Alexander.

Slate.—Stone Building Supply Co., Greensboro, N. C., wants names and addresses of manufacturers of red slate.

Steel.—See "Cement, etc."

Steel.—See "Miscellaneous Supplies."

Steel and Iron.—Bids will be received at Department of Justice, office of R. V. LaDow, Superintendent Prisons and Prisoners, Washington, D. C., until July 8 for furnishing and delivering at U. S. Penitentiary, Atlanta, Ga., structural steel and iron for administration building, including steel beams, channels, angles, hangers, lintels, tie rods, tie straps, bolts, etc., in accordance with specifications, copies of which, together with further information, may be had on application at above office.

Steel Cages.—J. B. Powell, Oxford, N. C., wants steel cage on wheels for prisoners.

Steel Ceiling, etc.—C. B. Willing, Morristown, Tenn., wants prices on steel ceiling and sheet steel.

Store Fixtures.—Proximity Mercantile Co., Greensboro, N. C., wants to correspond with manufacturers of store fixtures.

Structural Iron.—See "Building Materials."

Tank and Tower.—Xavier A. Kramer, Magnolia, Miss., wants prices on tank and tower for water-works and sewer system.

Terra-cotta Piping.—Cliffside Railroad Co., Cliffside, N. C., wants best quality terra-cotta piping.

Tools.—See "Manufactures."

Transmission Machinery.—Frederick Cotton Oil & Manufacturing Co., Frederick, Okla., wants transmission machinery.

Trucks.—Obion Coopers Co., Obion, Tenn., in market for 56 6-foot 6-inch steel roller ball-bearing trucks for drykiln.

Unloader.—A. V. Kaiser & Co., 739 Drexel Building, Philadelphia, Pa., want second-hand double-cylinder 12x12-inch Lidgerwood rapid unloader, with sub-base and plow, 60-ton pull.

Vacuum-cleaning Equipment.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City, Okla., wants quotations on vacuum-cleaning appliances for five-story office building.

Vault Door.—C. B. Willing, Morristown, Tenn., wants prices on vault door.

Vaults.—The Daily Oklahoman, E. K. Gaylord, business manager, Oklahoma City, Okla., wants prices on fireproof vaults.

**Water Heater.**—Rich Hill Sewer Pipe Co., Rich Hill, Mo., wants prices on hot-water heater, 40 inches by 10 feet.

**Water System.**—Planters' Cotton-Oil Co., Kosciusko, Miss., in market for water-works system for plant: 750-gallon underwriters' fire pump, 20,000-gallon tank on 80-foot tower, automatic sprinkler, necessary hydrants and hose; complete plans and specifications on file.

**Water-works.**—Board of Commissioners of Public Works, C. D. Jones, chairman, Lancaster, S. C., will receive bids until June 24 for furnishing material for construction of water-works as per plans and specifications; furnishing f. o. b. cars Lancaster approximately 346 tons of eight and six-inch cast-iron pipe and five tons of special castings, 36 fire hydrants, 38 valves, 28 valve boxes, horizontal duplex pumping engines, horizontal tubular boilers, electrically-driven turbine pump; furnishing and erecting one steel tower and tank; certified check for not less than 3 per cent. of bid; plans and specifications at office of John Crawford, City Clerk, and specifications can be obtained

from H. S. Jaudon & Goss, engineers, Box 582, Savannah, Ga.

**Water-works.**—Bethesda Academy, W. T. Morgan, president, Limestone, Tenn., wants bids on water-works.

**Water-works Construction.**—Harrison Sealey, Mayor, Shepherdstown, W. Va., wants proposals for town water system.

**Wheel Press.**—Jos. E. Bowen, 901 Bank of Commerce Building, Norfolk, V., wants second-hand wheel press.

**Wire Glass.**—C. B. Willing, Morristown, Tenn., wants prices on wire glass.

**Woodworking Machinery.**—See "Excelsior Machinery."

**Woodworking Machinery.**—Buffalo Manufacturing Co., Farmville, Va., wants second-hand band resaw and trimmer. Give full description.

**Woodworking Machinery.**—Bradley Furniture Manufacturing Co., Elizabethton, Tenn., wants triple-drum sander; double-end tenoner; power-feed rip saw; automatic glue-jointer, and hollow chisel mortiser; all new or second-hand.

## INDUSTRIAL NEWS OF INTEREST

### Drake's Lace Leather.

Drake's lace leather is now being manufactured by the Brunswick System Co. of Brunswick, Ga. This company has purchased the Drake process, and is ready to supply belting users.

### Cement for Building Residences.

Robert L. Whitcomb, Evergreen, Ala., wants to correspond with manufacturers of Portland cement relative to obtaining literature and other information on the uses of cement for building residences.

### Krumhaar & Alken.

The firm of Krumhaar & Alken, New Orleans, La., dissolved on June 1. Mr. Krumhaar continues the machinery business. Mr. Alken, with J. D. O'Reilly, will engage in general engineering-contracting under the name of the Alken-O'Reilly Company, with offices in the Wells-Fargo Building, New Orleans.

### Caldwell & Son Company.

The H. W. Caldwell & Son Company of Chicago has established a New England engineering and sales office at Room 337 Oliver Building, 141 Milk street, Boston, Mass. This office is in charge of Malcolm R. White, mechanical engineer, who will give attention to elevating, conveying and power transmitting propositions.

### Boiler and Machine Plant Sale.

Manufacturers who may be interested in securing a Southern boiler and machine plant are advised that a West Virginia establishment will be offered for sale on June 27. The plant is operated by natural gas at five cents per thousand feet, and is located in the midst of coal and oil developments. Address J. L. Howard, Mannington, W. Va.

### Manufacturing Plants for Brunswick

It is expected that various industrial enterprises will be located at Brunswick, Ga., during the next few months. Furniture, fertilizer, shoe, soap, glove and other factories are among those contemplated. The Brunswick System Co. is negotiating for these plants.

### Yeomans Bros. Pumping Machinery.

Among the manufacturers of general pumping machinery may be mentioned Messrs. Yeomans Bros., 1141 Monadnock Block, Chicago, Ill. They offer a general line of pumping machinery for all purposes and intend to arrange for extending their trade in the South. Yeomans Bros. are now prepared to correspond relative to agencies in Southern cities.

### James P. Freret, Machinery and Mill Supplies.

Announcement is made that James P. Freret has secured the agency of the Avery Scale Co., North Milwaukee, Wis., for automatic scales to weigh grain. Mr. Freret is located at 1023 Maison Blanche, New Orleans, La., and is a well-known dealer in machinery and supplies, catering to the trade throughout Louisiana.

### Has a New York Office.

The Buffalo Foundry & Machine Co., Buffalo, N. Y., which, besides making exceptionally large castings, is a builder of vacuum drying and impregnating machinery, vacuum drum, shelf and rotary driers, compressors, pumps, condensers and the Bell steam hammer, has established a New York office at

143 Liberty street. H. E. Jacoby is resident engineer and manager at New York.

### Increasing Demand for Engines.

The Houston, Stanwood & Gamble Company, Cincinnati, Ohio, reports that for the first six months of 1908 its business has shown a gratifying steadiness. The company's specialty is slide-valve engines, selling very largely in the South. At present the company finds much encouragement among the cotton ginners and sawmill men, who are active in preparations for summer activity.

### Baltimore-Built Bridges for Panama.

An indication of the territory which the Baltimore Bridge Company of Baltimore, Md., reaches with its product is seen in an announcement that the company will ship within two weeks a large steel railway bridge to be erected across the Sixaola river in Panama. This bridge weighs about 1000 tons and is 1000 feet long, the center span being 450 feet long. Another bridge being manufactured by the company will also be erected in Panama.

### Dufur-Baggott Modern Wire Work.

Increasing activity in the construction and improvement of buildings calls for large quantities of brass and steel wire, such as brass and steel wire work, ornamental iron grills, railing and elevator enclosures, skylight protectors, elevator cab wickets, guards, etc., which are continually being specified. Messrs. Dufur, Baggott & Co., 235 West Saratoga street, Baltimore, Md., make a specialty of this class of work, having a large modern plant, which enables them to supply purchasers with promptness.

### Bargains in Machinery.

Managers of plants which use woodworking, power and other machinery are advised that a number of machines of well known make are offered for sale by the Aumen Machinery & Supply Co., 316 North Holliday street, Baltimore, Md. The company's list includes Fay & Egan, Rowley & Hermance, Clement and other woodworking machines, besides Crocker-Wheeler motors, Worthington pumps, White & Middleton gas engines, Otto gasoline engines, Remington refrigerating plants and various other equipments.

### Contract for Safety Vault Awarded.

An important contract in safety-vault equipment has been awarded to the Herring-Hall-Marvin Safe Co. of Hamilton, Ohio. It calls for installation by January 1 in the First National Bank at Birmingham, Ala. The vault will have 3600 safe-deposit boxes, and will be one of the largest and most modern in the South. It will adjoin a safe-deposit vault for the storage of silverware and other bulky packages. The vault will be 14½ feet wide, 7½ feet high and 25 feet long; its steel lining will be 3 inches thick, equipped with a solid round door 7 feet in diameter, 14 inches thick, and a round emergency door 21 inches in diameter of the same thickness and construction.

### Invites Essays on Circuit Breakers.

In the endeavor to acquaint every user of electricity with the I-T-E circuit breaker and its wide field of usefulness, the manufacturer of that device is offering prizes for essays. There will be \$1200 distributed to the writers of the best 25 essays on the use of direct or alternating-current air break, circuit breakers, these essays to refer to one or more of

the following subjects: The I-T-E circuit breaker as a means of promoting the safety of employees; effecting economy of installation; promoting economy of operation in electric plants; securing uninterrupted operation of plant; minimizing fire risks; protecting electrical apparatus and motor-operated machinery; novel developments in circuit-breaker practice; and incidents from actual experience illustrating any of the above points. The first prize will be \$250, the second \$200, the third \$150. Full information regarding the competition can be obtained by addressing the Cutter Company, Philadelphia, Pa.

### Coal Handling for Sugar Refinery.

The American Sugar Refining Co. has contracted for the coal-handling equipment of its new plant at New Orleans. Run-of-mine coal will be used, coming in bottom-dump railroad cars, which deposit loads into a steel track hopper, from whence it is fed by a Link-Belt reciprocating feeding device into a crusher. A powerful bucket elevator will raise the coal from the crushing rolls about 85 feet high and deliver into Monobar roller flight conveyors, which, by suitable gates, will fill the large storage bins over the boilers. All the machinery will be driven by electric motors. Exceptional consideration has been given to the details of chains, wheels, etc., in order to assure great durability and security. The plant is arranged so that machinery can be added later to handle coal from barges on the Mississippi river, a short distance away. Contract for the coal-handling plant was awarded to the Link-Belt Company of Philadelphia, Pa., through its New Orleans representative, the Wilmot Machinery Co. This same company and its representative installed similar machinery for three other boiler-houses of the American Sugar Refining Co. at New Orleans over 12 years ago.

### A Recent Government Contract.

The Government has a strict system of making contracts, and the most experienced and competent engineers and inspectors supervise the work. In this connection it is of interest to note a recently-closed contract for an extensive system of temporary water supply for military camp to be established at Pine Camp, in Northern New York, about 40 miles from the St. Lawrence river, near Carthage. This contract, amounting to between \$15,000 and \$20,000, was awarded to the Sydnor Pump & Well Co. of Richmond, Va. This company gave a large bond, with a heavy forfeit per diem in event of inability to complete the plant by June 14. The work includes laying several miles of ¾ to 4-inch pipe, erecting three 20,000 and 10,000-gallon tanks on 40-foot towers, installing three large gasoline pumping engines and triplex pumps, 150 shower baths, 100 hydrants, 36 large horse water troughs, etc. The Sydnor Company is prepared to install water-supply systems of any size, ranging from \$50 to \$50,000, and makes a specialty of drilling artesian wells for water supply. It handles a full line of windmills, tanks, towers, gasoline engines of all kinds, pumps of every kind, hydraulic rams, sawmills, saws, engines, boilers, etc.

## TRADE LITERATURE.

### The Westover Products.

Several leaflets lately issued indicate the character of products offered by the Westover Paper Co. of Richmond, Va. This company manufactures (among other articles) the Westpaco dustless sweeping compound, oyster pails, the Twentieth Century bagholder, the Capital cone twine fixture and White-leather, which is offered as of light weight, uniform, white and equal to imported papers in strength.

### Methods of Departmentizing Business.

There has been issued in booklet form the address of S. Norvell before the Southern Hardware Jobbers' Convention at Hot Springs, Ark., on June 10. The address is entitled "The Best Methods of Departmentizing Business and the Benefits to Be Derived Therefrom." It presents some information that will interest merchants, manufacturers and others active in business life. Mr. Norvell is president of the Norvell Shapleigh Hardware Co. of St. Louis.

### Half-Tone Screens for Illustration.

Some unusually effective illustrations in half-tone screen work are presented in a folder being distributed by the Baltimore-Maryland Engraving Co. of 28 South Charles street, Baltimore, Md. They include views of the Capitol at Washington in one, two, three and four colors. The company named has a modern plant and a force of skilled and experienced photographers and engravers, enabling it to prepare satisfactory book-

lets, catalogues, folders, cuts and other needs of the modern advertiser.

### Information for Engineer and Fireman.

In the Penberthy Engineer and Fireman for May articles appear relative to rules for calculating the strength of steam boilers, taking spuds out of boilers, causes of knocks in steam engines, the utilization of waste products, substitutes for coal, steam-boiler catechism, methods of cleaning rusty iron, etc. The publication named is to be enlarged to 80 pages with the July issue, and inquiries for specimen copies are invited. Address the Penberthy Injector Co., Detroit, Mich.

### Does Well Drilling Pay?

The above question is the title of a booklet which is being mailed to men who contemplate engaging in the well business. This publication presents facts and figures that will interest prospective purchasers of equipment for drilling wells of any kind, and the data gives them a basis on which to figure. "Does Well Drilling Pay?" is issued by the Cyclone Drill Co., manufacturer of well-drilling, prospecting, oil, gas and placer drills, steam and gasoline engines, fishing tools and other kindred equipment. Offices at Orville, Ohio.

### Compressing at the Gin.

It is well known that the cotton-grower needs machinery enabling him to compress his cotton on the plantation or at the cross-road gin, ready for the spinner or exporter or his agent. This advantage is said to be secured in the Farmers' gin-compress manufactured by the Farmers' Gin-Compress & Cotton Co., Tennessee Trust Building, Memphis, Tenn. A pamphlet describing this gin and presenting photographic views of the equipment and its product is now being distributed by the company, of which Harvie Jordan of Atlanta, Ga., is president.

### Describing the Sunbeam Lamps.

There has been issued a wall circular descriptive of the various types of Sunbeam lamps. It will be found useful to dealers, contractors and central station managers for reference, as it is more convenient to refer to than catalogues. The circular is comprehensive, covering all the standard types of Sunbeam lamps on the market, such as battery, miniature, candelabra, round bulb, tubular, reflector, stereopticon, train lighting, street series, Gem, tantalum, tungsten, etc. The circular is issued by the Western Electric Co., 259 South Clinton street, Chicago.

### Swift's Fire Door Fuel Apparatus.

The Swift Fuel Co., 903 Security Building, Chicago, Ill., is distributing an illustrated pamphlet descriptive of Swift's fire-door fuel feeder, for smokeless economical combustion, utilizing low-grade fuels. This device is said to have been proven adaptable to all classes of installation, including steam boiler, annealing furnaces, reheating furnaces, etc., and to be reliable and durable. The feeder replaces the fire door, and is entirely automatic. Managers of power plants and others interested in the economical production of power are invited to write for a copy of the pamphlet.

### No Limit as to Candle Power.

The Scott flaming arc lamp is one of the simplest and most effective illuminating devices offered. It uses any form or composition of flaming or impregnated carbons, and gives any desired color of light—white, violet, red, yellow, orange and orange-yellow, the nearest approach to sunlight. For the same cost of current the Scott arc is claimed to give at least ten times the light yielded by ordinary enclosed or open arc lamps. The Scott Electrical Co. is the manufacturer, and is distributing an illustrated booklet describing its products. Main offices at 53 Nassau street, Newark, N. J.

### Prize-Winning Designs.

An interesting publication is "Prize-Winning Designs," which is published by Messrs. F. W. Bird & Son, East Walpole, Mass. It presents illustrations and plans selected in a competition for designs of cottages to cost not more than \$3000. These houses are to be built at East Walpole in connection with the Bird paper mills, and each is designed for one family. The first prize was awarded to Herman J. Voss of Boston, the second to William C. Ayres of New York and the third to J. T. Tubby, Jr., of New York. Prostate roofing material, Floran sound-deadening felt and Peponet red waterproof paper are prominent among the materials specified for the cottages.

### Durability of Roofing.

In the June issue of the Cortright Metal Shingle Advocate appears an article on metal

roofing under the heading, "How Long Will It Last." This ought to prove interesting to all those who have anything to do with building. The Advocate cites a single instance of a metal roof, not Cortright, that lasted 85 years. Cortright shingles have only been on the market 21 years, but the roofs put on during that time are said to be as good as new today. On page 6 of the same issue is a testimonial from a man who put on one of these roofs in 1887. He says it is as good as the day it was put on, and has only been painted once. Anyone desiring to receive the Cortright Advocate regularly can have it without charge by advising the Cortright Metal Roofing Co., Philadelphia, Pa., or Chicago, Ill.

#### Appliances for Transmission of Power.

Modern and approved appliances for the transmission of power are referred to in abridged catalogue No. 24 being distributed by the T. B. Wood's Sons Company of Chambersburg, Pa. This abridged edition is offered to serve until the company's new general catalogue is completed, and it contains, in condensed form, illustrations and price-lists of practically the company's entire line of transmission appliances. Tension carriages, rope sheaves, pulleys, bushings, clutches, drives, belt tighteners, pulley stands, bearings, couplings and various other parts of equipments for power purposes are included in the catalogue's contents. Established in 1857 and incorporated in 1906, the T. B. Wood's Sons Company has become widely known as a manufacturing engineer offering the most approved forms of power-transmitting devices.

#### Endorsement of Petrolithic Pavements.

An interesting endorsement of petrolithic pavements as constructed on the Pacific coast is contained in a letter which James W. Abbott, civil and mining engineer, Pioche, Nev., wrote to J. J. Donovan of Washington State, requesting information to be used in the preparation of a series of articles on "Recent Highway Development in the Pacific Coast States." The letter is a personal one, and as Mr. Abbott is in no way connected with the Petrolithic Company, it is a splendid endorsement of that company's system of building modern roadways. Added value is given to Mr. Abbott's opinion, as for five years he was the special agent of the U. S. Department of Agriculture on Rocky mountain and Pacific coast division public road work. The Petrolithic Pavement Co., 764 Pacific Electric Building, Los Angeles, Cal., has had this correspondence reprinted for distribution among those interested in modern roadway construction.

#### Modern Underground Haulage in Coal Mines.

Progressive operators of industrial plants are ever on the alert to install such improvements as will tend to decrease the cost of production. This is essential to meet the demands of economy as well as those of competition. In the coal-mining industry the Broderick & Bascom Rope Co., St. Louis, Mo., has studied closely for many years the question of underground wire rope haulage, and as a result has developed a system which has proved successful wherever installed and operated along proper lines. In order to give definite and detailed information, the company has published in pamphlet form a description of the underground wire-rope haulage as successfully applied to the workings of the Coal Valley Mining Co. at Sherrard and Cable, Ill. Both of these mines are equipped with the tail-rope system, which is accepted as capable of more general application, and the many large and clear-cut illustrations and diagrams, together with descriptive matter tables of cost for installation and operation, give a comprehensive idea of the economy, durability and other advantages derived from such installations. In the workings described there is rope in use today which has been worked constantly for more than eight years with small amount of deterioration, and it is claimed this is possible in any underground operation where the proper care is given to operation. In these installations the rope is never allowed to touch the ground while running, wooden rollers being so placed as to effectually prevent this occurrence, as mine dust, mud and water have a much more injurious effect than the same elements above ground, owing to their powerful chemical qualities. The entire rope, including hemp center, is kept constantly lubricated and never allowed to work shaly. Careful provision is also made for gradual starting and stopping, and the ropes are kept taut while running. As the tunnel end undergoes more hard usage than the drum end, the entire rope is reversed to distribute this wear.

#### Coal Briquetting.

The utilization of the slack coal resulting from the processes of mining, transportation and handling, and from exposure of the product to weather is recognized by economists as one of the most serious problems connected with the fuel industry. The slack from coals suitable for the production of coke presents no difficulty, as it is in demand for that purpose; and that from coal that does not coke but cakes rather readily can also be used under boilers without great loss. But slack from coal that cakes less readily can be burned only on grates of special construction, and even when so used it is troublesome to handle and the waste is much greater than when lump coal is burned. It is, of course, possible to obtain the full value of this slack coal as fuel by first forming it into a coherent mass or briquettes. That properly made briquettes may have greater fuel value than the original lump coal from which the slack was derived is indicated by their use in the locomotives on the State railways of France and Belgium when heavy grade, load or speed requires the maximum effect of traction. Twenty-five per cent. of the fuel used by the Belgian State Railroad department, which operates 90 per cent. of the railways of the kingdom, is in the form of briquettes. With so great a demand for the product it is but natural that the briquette industry in these foreign countries should have reached a high stage of development. In the United States progress has been slower, chiefly because of the abundant supply of cheap raw fuel with which the manufactured article has to compete. With millions of acres of coal-producing lands in which the coal can in most places be cheaply mined, it has appeared in many districts to be more economical to waste the slack than to attempt to recover it at the additional expense required for briquetting. For this reason large tracts in the anthracite coal region of Pennsylvania are covered by unsightly culm banks, and in bituminous coal regions huge piles of unmarketable slack are allowed to burn in order to get rid of them. Many thousands of tons of what might be converted into usable fuel are therefore wasted every year.

For the purpose of determining the extent to which the manufacture of briquettes from slack coal may succeed under the conditions existing in the United States, an investigation has been carried on at the fuel-testing plant of the United States Geological Survey at St. Louis by Mr. James E. Mills, whose report on the work has just been published by the Survey as Bulletin 343. The problem to be solved was not alone how to make the best possible briquette, but how to produce at a profit a briquette of satisfactory grade for the use intended with the slack and binders available. The experiments made by Mr. Mills include tests of the behavior of a large number of different coals with a few binders and of a few coals with a large number of different binders. Tests were made with each coal and with each binder until the percentage of binder required to produce a satisfactory briquette with that coal was determined. The behavior of the briquettes in the fire and, when necessary, in water, was noted. The binders used were examined as to their chemical or physical properties, and such modification of each binder was made as seemed likely to produce most efficient results.

The desirable qualities of a binder are stated by Mr. Mills as follows:

1. It must be sufficiently cheap to make the manufacture of briquettes profitable.
2. It must bind strongly, producing a briquette sufficiently hard but not too brittle.

3. It must hold the briquette together satisfactorily in the fire.

4. It must produce a briquette sufficiently waterproof to stand the conditions of use.

5. It should not cause smoke or foul-smelling or corrosive gases, nor should it foul the flues.

6. It should not increase the percentage of ash or clinker.

7. It should increase, or certainly it should not diminish, the heat units obtainable from a given weight of fuel.

The experiments show that in general, for plants situated where it can be obtained, the cheapest binder will prove to be the heavy residuum from petroleum, often known to the trade as asphalt. This is particularly available in California, Texas, and adjacent territory. Second in importance comes water-gas tar pitch, and third coal-tar pitch. Of local importance, where the price permits, are natural asphalt and tars derived from wood distillation. Pitch made from producer-gas tar will produce excellent briquettes with a lower percentage of binder than other coal-tar pitches. It is not yet on the market, but will doubtless be available in the future. Starch, waste sulphite liquor from paper mills and magnesite may also be utilized as binders for briquettes.

Mr. Mills' report, which contains details of his experiments, may be obtained free of charge by applying to the director of the Geological Survey at Washington, D. C.

Mr. T. G. Hudson, State Commissioner of Agriculture, estimates that this year's farm products in Georgia will be worth about \$200,000,000, of which \$5,000,000 will come from peaches.

The Selma Auto & Transportation Co. has been incorporated at Selma, Ala., with \$2000 capital by J. M. Brown, J. L. Bishop and M. F. Campbell.

## FINANCIAL NEWS

### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., June 17.

The Baltimore stock market has been dull during the week. In the trading United Railways common, trust certificates, sold at 10¼ to 10½; the income bonds from 51¼ to 51½, reacting to 51½; do. funding 5s, 76½ to 75¾, reacting to 76¾; do. do. scrip, 76¾ to 75¾, reacting to 76; United 4s, 85 to 85½; Consolidated Gas, Electric Light & Power 4½s, 77 to 77½; Consolidated Gas 6s, 104¼; do. 4½s, 89½; Seaboard 4s, 51¼ to 52; Mt. Vernon-Woodberry Cotton Duck 5s, 73¼ to 74¾; G. B.-S. Brewing incomes, 14½ to 15½; do. 1sts, 43¼ to 43½.

Citizens' Bank stock sold at 33; Baltimore Trust, 286; Maryland Casualty, 68; Mercantile Trust, 112½ to 113; Fidelity & Deposit, 120; Mechanics' Bank, 26.

Other securities were traded in as follows: Atlantic Coast Line of Connecticut, 205; Northern Central Railway stock, 90 to 90½; Anacostia & Potomac 5s, 99; Metropolitan (Washington) 5s, 109½; Virginia Midland 4th, 104; Georgia & Alabama Consolidated 5s, 97; Georgia, Carolina & Northern 5s, 99½ to 99½; Pennsylvania Railroad new 4s, 101; Atlantic Coast Line of Connecticut 5-20s, 83; City & Suburban (Washington) 5s, 102; Baltimore Electric 5s, stamped, 87½; Baltimore & Annapolis Short Line 5s, 99; Baltimore City 5s, 1916, W. L., 106¾; do. 4s, 1954, 103½ to 104; do. 3½s, 1940, 93; Atlantic Coast Line Consolidated 4s, 92½; Baltimore, Sparrows Point & Chesapeake 4½s, 92¾; City & Suburban (Baltimore) 5s, 108; Norfolk Railway & Light 5s, 90½; Virginia Century, registered, 90½ to 90¾; do. new 3s, 91¼;

Western Maryland Railroad stock, 5½; North Baltimore 5s, 113½; Raleigh & Augusta 6s, 111 to 112; Aberdeen Water 5s, 1922, 100; Wabash Pittsburg Terminal 4s, 46; Buffalo & Susquehanna Refunding 4½s, 90; Detroit United 4½s, 68.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 17, 1908.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast of Conn.	100	105	210
Georgia South. & Fla. 2d Pfd.	100	...	65
Norfolk Railway & Light	25	16	17
Seaboard Co. Com.	100	25	7
Seaboard Co. 1st Pfd.	100	100	113½
Seaboard Co. 2d Pfd.	100	100	113½
United Rys. & Elec. Co.	50	10	10½

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank	10	32¾	...
Drovers' & Mechanics' Bank	100	...	250
German-American Bank	100	109½	...
Merchants' National Bank	100	163	...
National Howard Bank	10	12¼	...
National Marine Bank	30	36	...
National Mechanics' Bank	10	25	...
National Union Bank of Md.	100	115	120
Third National Bank	100	115	121

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust & Guar.	100	285	290
Continental Trust	100	...	167
Fidelity & Deposit	50	120	122½
Maryland Casualty	25	67	68½
Merc. Trust & Deposit	50	112	...
Union Trust	50	...	62½
U. S. Fidelity & Guar.	100	105	...

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron	100	24	30
Ala. Con. Coal & Iron Pfd.	100	...	75
Con. Cotton Duck Pfd.	50	...	22½
Con. Gas, Elec. Lt. & P. Com.	100	29	...
Con. Gas, Elec. Lt. & P. Pfd.	100	69	74
Consolidation Coal	100	86	88
G. B.-S. Brewing Co.	100	...	4½
George's Creek Coal	100	67½	72½

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s, 1945	...	93½	...
Atlanta & Birmingham 4s	...	68	...
Atlanta & Charlotte Ext. 4½s	100	...	100
Atlantic Coast Line 1st 4s, 1952	...	91	93
Atlantic Coast Line 1st 4s, Cts., 1952	...	72½	74
At. Coast Line Com. 4s, Cts., 5-20s, 82	...	...	...
Balto. & Harriburg Ext. 5s, 1938	...	101½	...
Brunswick & Western 4s	...	93	95
Carolina Central 4s, 1949	...	80½	81½
Charlotte, Col. & Aug. 1st 5s, 1910	102½	...	...
Coal & Coke Railway 5s	...	76	85
Florida Southern 4s, 1940	...	86	88
Georgia, Car. & North. 1st 5s, 1929	99¼	100	...
Georgia Pacific 1st 5s, 1922	...	110	...
Georgia South. & Fla. 1st 5s, 1945	102½	...	...
Petersburg, Class A, 5s, 1926	...	108	...
Petersburg, Class B, 5s, 1926	...	115	...
Piedmont & Cum. 1st 5s, 1911	...	95	...
Potomac Valley 1st 5s, 1941	...	100	102½
Raleigh & Augusta 1st 5s, 1926	...	110	113
Richmond & Danville Gold 6s, 1915	108	108¾	...
Sav. Fla. & West 6s	123¼	124¼	...
Seaboard Air Line 4s, 1950	...	52¼	52½
Seaboard Air Line 5s, 10-year, 1911	...	86½	...
Seaboard & Roanoke 5s, 1926	...	100	103½
Silver Spg., Ocala & Gulf 4s, 1918	...	96½	97½
Washington Terminal 3½s	...	88¾	89½
Western Maryland 4s, 1952	...	70	...
West Va. Cent. 1st 5s, 1911	...	103¾	...
W.L., Col. & Aug. 6s, 1910	...	105	...

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s, 1949	99	99¼	...
Augusta Railway & Electric 5s, 1940	97	98	...
Baltimore City Passenger 5s, 1911	101¼	...	...
Baltimore Traction 1st 5s, 1929	108¾	110¼	...
Balto. Trac. (N. B. Div.) 5s, 1942	112¼	113½	...
Central Railway 6s	102½	...	...
Charleston Con. Elec. 5s, 1909	87	89	...
City & Suburban 5s (Balto.), 1922	107¾	108¼	...
City & Suburban 5s (Wash.), 1948	102	...	...
Knoxville Traction 1st 5s, 1928	...	103	...
Lake Roland Elevated 5s, 1942	...	109	...
Macon Ry. & Lt. 1st Con. 5s, 1953	91	...	...
Metropolitan 5s (Wash.), 1925	109¼	109¾	...
Norfolk & Portsmouth Traction 5s	...	103	...
Richmond Traction 5s	...	102	...
United Railways 1st 4s, 1949	...	85¼	85¾
United Railways Inc. 4s, 1949	...	51¼	51½
United Railways Funding 6s	...	76¼	76½

Miscellaneous Bonds.	Par.	Bid.	Asked.
Baltimore Electric 5s	...	88	...
Consolidated Gas 5s, 1939	...	109½	...
Consolidated Gas 4½s	...	89¾	...
G. B.-S. Brewing 1st 4s	...	43	44
G. B.-S. Brewing Inc. 4s	...	14½	16
Maryland Telephone 5s	...	94	96
Mt. Vernon-Woodbury Cot. Duck 5s	74½	75	...
United Elec. Lt. & P. 4½s	...	86	88

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending June 15.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	...	81
Aiken Mfg. Co. (S. C.)	...	90
American Spinning Co. (S. C.)	145	145
Anderson Cotton Mills (S. C.)	...	70
Arkwright Mills (S. C.)	...	110
Augusta Factory (Ga.)	...	65
Avondale Mills (Ala.)	115	125
Belton Mills (S. C.)	...	106
Bibb Mfg. Co. (Ga.)	...	114
Brandon Mills (S. C.)	125	...
Cabarrus Cotton Mills (N. C.)	110	130
Chadwick-Hoskins Mills (N. C.) Pfd.	...	100
Chiquola Mfg. Co. (S. C.)	127	130
Cotton Mfg. Co. (S. C.)	102	108
Clifton Mfg. Co. (S. C.) Pfd.	...	90½
Clinton Cotton Mills (S. C.)	...	120
Columbus Mfg. Co. (Ga.)	...	98
Courtenay Mfg. Co. (S. C.)	...	97½
Dallas Mfg. Co. (Ala.)	90	95
Darlington Mfg. Co. (S. C.)	78	80
Drayton Mills (S. C.)	...	100
Eagle & Phenix Mills (Ga.)	125	137½
Eastley Cotton Mills (S. C.)	135	150
Enoree Mfg. Co. (S. C.)	...	69
Enoree Mfg. Co. (S. C.) Pfd.	...	100
Enterprise Mfg. Co. (Ga.)	85	90

[For Additional Financial News, See Pages 70 and 71.]

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Surplus and Profits, - - - \$900,000  
Deposits, \$12,000,000

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Deposits - \$1,000,000.00

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GEO. E. PRICE, . . . Vice-Prest.  
H. B. LEWIS, . . . Cashier  
H. P. BRIGHTWELL, Asst. Cashier

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under the Delaware Law has been greatly reduced. The annual tax for 1907 has been decreased 50%. Beginning with 1908, the State tax will be \$5.00 per year for small companies and not over \$50.00 for \$1,000,000 of capitalization. For Sixth Edition of "Pointers," Estimates of Cost, Forms, Ac., apply to

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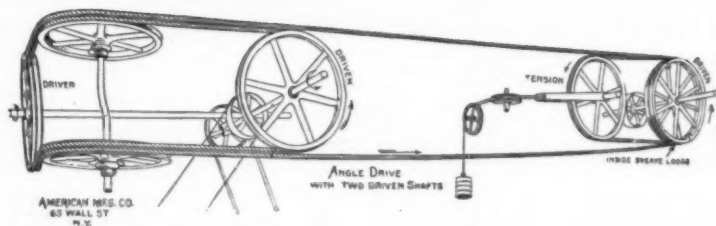
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Exposition Cotton Mills (Ga.)	240
Gaffney Mfg. Co. (S. C.)	75
Galveston Cotton Mills (S. C.)	56
Granby Cot. Mills (S. C.) 1st Pfd.	40
Granville Mfg. Co. (S. C.)	160
Greenwood Cotton Mills (S. C.)	90
Grendel Mills (S. C.)	115
Henrietta Mills (N. C.) 1st Pfd.	160
King Mfg. Co., John P. (Ga.)	99
Lancaster Cotton Mills (S. C.)	115
Lancaster Cot. Mills (S. C.) Pfd.	91
Langley Mfg. Co. (S. C.)	91
Laurens Cotton Mills (S. C.)	140
Limestone Mills (S. C.)	141
Lockhart Mills (S. C.)	85
Lockhart Mills (S. C.) Pfd.	97
Loray Mills (S. C.) Pfd.	90
Marlboro Cotton Mills (S. C.)	85
Mayo Mills (N. C.)	165
Mills Mfg. Co. (S. C.)	103
Mills Mfg. Co. (S. C.) Pfd.	110
Monaghan Mills (S. C.)	113
Monarch Cotton Mills (S. C.)	102
Newberry Cotton Mills (S. C.)	145
Norris Cotton Mills (S. C.) Pfd.	115
Olympia Cotton Mills (S. C.)	68
Orangeburg Mfg. Co. (S. C.) Pfd.	90
Orr Cotton Mills (S. C.)	106
Pacolet Mfg. Co. (S. C.)	141
Pacolet Mfg. Co. (S. C.) Pfd.	97
Pelzer Mfg. Co. (S. C.)	165
Piedmont Mfg. Co. (S. C.)	175
Poe Mfg. Co. (S. C.)	114
Raleigh Cotton Mills (S. C.)	105
Richland Cot. Mills (S. C.) Pfd.	85
Roanoke Mills (N. C.)	175
Saxon Mills (N. C.)	122
Sibley Mfg. Co. (Ga.)	59 1/2
Spartan Mills (S. C.)	140
Springdale Mills (S. C.)	100
Tucapau Mills (S. C.)	155
Trion Mfg. Co. (Ga.)	140
Union-Buttall Mills (S. C.) 1st Pfd.	60
Victor Mfg. Co. (S. C.)	120
Warren Mfg. Co. (S. C.)	92
Warren Mfg. Co. (S. C.) Pfd.	105
Washington Mills (Va.)	22
Washington Mills (Va.) Pfd.	100
Whitney Mfg. Co. (S. C.)	140
Williamson Mills (S. C.)	108
Wiscasset Mills (N. C.)	130
Woodruff Cotton Mills (S. C.)	122
Woodside Cotton Mills (S. C.)	105

#### Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending June 15.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	80	80
Aetna Cotton Mills (S. C.) Pfd.	80	80
Aiken Mfg. Co. (S. C.)	90	90
American Spinning Co. (S. C.)	145	145
Anderson Cotton Mills (S. C.)	75	75
Arcadia Mills (S. C.)	95	100
Arkwright Cotton Mills (S. C.)	105	105
Augusta Factory (Ga.)	65	70
Avondale Mills (Ala.)	110	110
Belton Mills (S. C.)	108	108
Brandon Mills (S. C.)	124	124
Brogton Mills (S. C.)	45	45
Calmar Cotton Mills (N. C.)	125	125
Chadwick Mfg. Co. (N. C.) Pfd.	108	108
Chiquola Mfg. Co. (S. C.)	125	125
Clifton Mfg. Co. (S. C.)	105	105
Clifton Mfg. Co. (S. C.) Pfd.	101	101
Clinton Cotton Mills (S. C.)	100	100
Columbus Mfg. Co. (Ga.)	94	98
Courtenay Mfg. Co. (S. C.)	100	100
Dallas Mfg. Co. (Ala.)	90	90
Darlington Mfg. Co. (S. C.)	90	95
D. E. Converse Co. (S. C.)	112	112
Drayton Mills (S. C.)	100	100
Eagle & Phenix Mills (Ga.)	130	135
Easley Cotton Mills (S. C.)	145	150
Enoree Mfg. Co. (S. C.)	70	82
Enoree Mfg. Co. (S. C.) Pfd.	100	102
Enterprise Mfg. Co. (Ga.)	82	80
Exposition Cotton Mills (Ga.)	225	225
Gaffney Mfg. Co. (S. C.)	74	80
Galveston Cotton Mills (Ga.)	60	60
Glenwood Cotton Mills (S. C.)	122	122
Gluck Mills (S. C.)	90	98
Granby Cot. Mills (S. C.) 1st Pfd.	50	50
Granville Mfg. Co. (S. C.)	160	165
Greenwood Cotton Mills (S. C.)	90	94
Grendel Mills (S. C.)	115	117 1/2
Hartsville Cotton Mills (S. C.)	115	120
Henrietta Mills (N. C.)	115	165
Inman Mills (S. C.)	103	110
King Mfg. Co., J. P. (Ga.)	97	102
Lancaster Cotton Mills (S. C.)	109	109
Lancaster Cot. Mills (S. C.) Pfd.	92	99
Langley Mfg. Co. (S. C.)	92	96
Laurens Mills (S. C.)	150	162
Limestone Mills (S. C.)	140	150
Lockhart Mills (S. C.)	75	80
Lockhart Mills (S. C.) Pfd.	90	101
Loray Cotton Mills (N. C.) Pfd.	90	100
Marlboro Cotton Mills (S. C.)	80	90
Mills Mfg. Co. (S. C.)	105	105
Molokoh Mfg. Co. (S. C.)	100	100
Monaghan Mills (S. C.)	112	112
Monarch Cotton Mills (S. C.)	98	102
Newberry Cotton Mills (S. C.)	127	127
Ninety-Six Cotton Mills (S. C.)	115	120
Norris Cotton Mills (S. C.)	117	122
Odeh Mfg. Co. (N. C.)	90	90
Olympia Cotton Mills (S. C.)	70	80
Orr Cotton Mills (S. C.)	100	105
Pacolet Mfg. Co. (S. C.)	165	165
Pacolet Mfg. Co. (S. C.) Pfd.	101	104
Pelzer Mfg. Co. (S. C.)	167	175
Piedmont Mfg. Co. (S. C.)	170	170
Poe Mfg. Co. (S. C.)	125	130
Saxon Mills (S. C.)	120	125
Sibley Mfg. Co. (Ga.)	58	63
Spartan Mills (S. C.)	140	148
Trion Mfg. Co. (Ga.)	132	140
Tucapau Mills (S. C.)	200	200
Union-Buttall (S. C.) 1st Pfd.	20	25
Union-Buttall (S. C.) 2d Pfd.	20	25
Warren Mfg. Co. (S. C.)	130	130
Warren Mfg. Co. (S. C.) Pfd.	102	107
Washington Mills (Va.)	20	25
Washington Mills (Va.) Pfd.	100	105
Watts Mills (S. C.)	104	106
Whitney Mfg. Co. (S. C.)	140	140
Williamson Mills (S. C.)	105	105
Wiscasset Mills (N. C.)	127	130
Woodruff Cotton Mills (S. C.)	124	130
Woodside Cotton Mills (S. C.)	110	110

#### Texas Bankers.

At the annual meeting of the Texas Bankers' Association, held at Fort Worth, Texas, June 4, 5 and 6, the following officers were elected for the ensuing year:

President, T. C. Yantis, Brownwood; vice-presidents, district No. 1, H. A. Boatwright, Bryan; No. 2, J. H. Hirsch, Corpus Christi; No. 3, G. M. Boone, Taylor; No. 4, J. W. Butler, Clifton; No. 5, W. F. Skillman, Sulphur Springs; No. 6, L. L. Shield, Santa Anna; No. 7, W. H. Fuqua, Amarillo; secretary, J. W. Hoopes, Austin; treasurer, Tom W. Slack, Fort Worth; assistant secretary, Dewitt C. Dunn, Houston.

#### Oklahoma State Banks.

A condensed statement of 494 State banks in Oklahoma at close of business May 14, 1908, shows loans and discounts, \$16,414,588; due from banks at sight, \$7,919,878; cash in bank, \$1,964,392; capital stock paid in, \$6,640,650; surplus fund, \$563,417; undivided profits, \$859,617; due to banks, \$705,727; individual deposits, \$20,387,887; total resources, \$29,645,638. The increase in individual deposits since February 29, when the last statement was made, is \$2,355,602, and 24 new State banks have been organized since that date.

#### West Virginia Bankers.

At the annual meeting of the West Virginia Bankers' Association, held at Charleston June 11 and 12, the following officers were elected for the ensuing year: President, W. B. Irvine, Wheeling, W. Va.; vice-presidents, H. B. McKinley, Salem; W. W. Woods, Keyser; L. S. Tully, Mt. Hope; C. S. Bumgardner, Parkersburg, and C. M. Cohen, Huntington; secretary-treasurer, J. S. Hill, Charleston; W. G. Wilson, Elkins, and H. C. Harvey, Huntington, delegates to the convention of the American Bankers' Association.

#### Texas State Banks.

In a report to the Texas State Bankers' Association Mr. N. S. Graham, president of the American Bank & Trust Co. of San Antonio, Texas, said that there are in operation today in Texas 314 State banks and trust companies that were organized under the State bank law which became effective August 14, 1905, and that the aggregate of deposits under the call of May 14 last was \$21,100,000; loans and discounts, \$21,000,000; cash in vault and exchange, \$11,200,000, and surplus and undivided profits, \$1,250,000.

#### Georgia Bankers.

At the annual meeting of the Georgia Bankers' Association, held at Brunswick June 11 and 12, the following officers were elected for the ensuing year: Horace A. Crane, Savannah, president; E. D. Walter, Brunswick, first vice-president, and L. P. Hillyer, Macon, secretary.

#### New Corporations.

Darlington, S. C.—The Metropolitan Home Mutual Industrial Life Benefit Society has been incorporated with \$500 capital. Jos. A. Robinson is president, and R. B. Chestnut, secretary.

Gonzales, Texas.—Gonzales State Bank & Trust Co., capital \$75,000, has been incorporated by W. J. Bright, G. A. Rives, W. E. Richards, J. C. Bright and others.

Higginsville, Mo.—The Farmers' Bank has been organized with \$30,000 capital. The directors are L. T. Land, R. M. Webb, A. J. Nolting, W. H. Jennings, H. F. Holke, John Woestmeyer, H. C. Thee, William Walker, J. H. Knipmeyer and H. E. Kuhne.

Houston, Texas.—The American National Bank, capital \$250,000, has been approved. The organizers are W. E. Richards, S. S. Brady, Sterling Myer, Frank Williford and others.

Johnson City, Tenn.—The Bank of Commerce, capital \$50,000, has elected the following directors: F. S. Brown, S. E.

Miller, Capt. W. H. Nelson, H. R. Shipley, W. F. Winecoff, O. R. Marshall, W. F. Taylor, Guy L. Smith, J. C. Campbell, J. A. Summers, F. K. Mountcastle, Dr. E. A. Long, H. C. Jackson, T. V. M. Cowan and G. W. Swingle. It is understood that W. B. Miller will be cashier.

Leland, Miss.—The First National Bank has been approved; capital \$50,000. The organizers are W. O. Aldridge, A. J. Ald-

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Office of VIRGINIA-CAROLINA CHEMICAL CO., Richmond, Virginia.

June 9, 1908.

DIVIDEND NO. 51.

The Board of Directors have this day declared a dividend of TWO (2%) PER CENT., the same being consecutive quarterly dividend No. 51, on the preferred stock of this Company, payable July 15, 1908, when checks will be mailed to all preferred stockholders of record at the close of business on June 30, 1908.

Books for the transfer of preferred stock will be closed from 3 P. M. June 30, 1908, to 10 A. M. Thursday, July 23, 1908.

S. W. TRAVERS, Treasurer.

ridge, W. L. Hay, H. Goepel and J. R. Jones.

Lipscomb, Texas.—The Lipscomb State Bank has been incorporated with \$10,000 capital by C. H. Lockhardt, D. Barton, A. S. Burran and others.

Mandeville, La.—The St. Tammany Banking Co. and Savings Bank has begun business.

McComb City, Miss.—The Mechanics' National Bank has begun business; capital \$50,000; W. W. Lake, president; B. F. Lampton, cashier, and P. J. Albrecht, assistant cashier.

Middleburg, N. C.—The Middleburg Banking Co. has been chartered with \$25,000 capital by J. R. Finch, S. F. High and H. J. Morris.

Muskogee, Okla.—The Oklahoma Trust Co. is reported chartered with \$300,000 capital.

Newport News, Va.—The Crown Savings Bank has been incorporated with from \$5000 to \$25,000 capital by E. C. Brown, president; John Williams, vice-president; C. B. McIntyre, secretary and treasurer.

Parkersburg, W. Va.—The People's Investment Corporation has been incorporated with \$5000 capital by J. R. Wallace, Monroe Shrewsbury, C. B. Brown and T. C. Wallace of Parkersburg and Rush Wallace of Pittsburg.

Parksville, S. C.—The Bank of Parksville has been incorporated with \$20,000 capital by W. J. Talbert, W. R. Parks, W. P. Parks, T. G. Tolbert, L. F. Dorx, W. N. Elkins and W. R. Parks.

Pine Bluff, Ark.—The Knox-Roberts Abstract Co. has been organized by L. O. Knox and K. T. Roberts to succeed the N. T. Roberts & Son Abstract Co.

San Antonio, Texas.—The San Antonio Loan Security Co. has been incorporated with \$25,000 capital by C. L. Pierce, Mason Williams, Frank Lewis, N. S. Graham, Henry A. Diegel and Robert J. Smith.

Sylacauga, Ala.—The Citizens' Bank is to begin business about August 1 with J. P. Batson as president.

### New Securities.

Albany, Ga.—Dougherty county recently voted \$30,000 of road-improvement bonds.

Alvin, Texas.—The question of holding an election to vote on bonds for erection of a \$15,000 school is reported under consideration.

Anniston, Ala.—An ordinance has been introduced in the City Council authorizing an issue of \$12,000 of public improvement bonds.

Atlanta, Ga.—W. J. Campbell, City Clerk, informs the MANUFACTURERS' RECORD that application is to be made to the Legislature for authority to issue \$1,500,000 of water-works, sewer and school bonds.

Bartlett, Texas.—The State Board of Education has purchased \$15,000 of 4½ per cent. schoolhouse bonds.

Bartlesville, Okla.—Bids will be received until 6 P. M. June 20 by C. L. Foulk, clerk Board of Education, for \$100,000 of 5 per cent. 20-year bonds of Bartlesville school district.

Baton Rouge, La.—A bill has passed the Senate authorizing the Orleans Levee Board to issue \$3,000,000 of bonds.

Beaufort, N. C.—An election is to be held June 29 to vote on \$43,000 of town-hall, water-works and electric-light bonds. It is stated that additional bonds may be floated later.

Beaumont, Texas.—Bonds for docks and wharfage will probably be issued.

Beaumont, Texas.—Reports state that an election is soon to be held to vote on \$50,000 of improvement bonds of Willow-marsh Drainage District, Jefferson county.

Birmingham, Ala.—The People's Savings Bank & Trust Co. and the First National Bank of Birmingham were awarded at par the \$400,000 of 5 per cent. 30-year sewer bonds.

Bishopville, S. C.—Bids will be received until noon July 14 by W. A. James, secretary, for \$35,000 of 5 per cent. 15-20-year Lee county courthouse bonds.

Bristow, Okla.—The city has voted \$18,000 of school bonds.

Brunswick, Md.—The relief department of the Baltimore & Ohio Railroad has purchased at par \$15,000 of water bonds.

Chattanooga, Tenn.—Bids are being received for \$23,468 of 6 per cent. paving bonds. W. R. Crabtree is Mayor.

Chestertown, Md.—Hambleton & Co. and Baker, Watts & Co. of Baltimore have purchased \$28,000 of 5 per cent. water-works bonds.

Clinton, N. C.—On July 6 the Board of Commissioners of Sampson county will offer for sale \$5000 of 5 per cent. 10-year bonds. A. J. Johnson is chairman of the board.

Cornelia, Ga.—J. W. Peyton, Mayor, informs the MANUFACTURERS' RECORD that bids will be received until noon June 30 by L. F. Maxwell, City Clerk, for \$10,000 of 5 per cent. 30-year school bonds.

Dalhart, Texas.—William E. Sweet & Co. of Denver recently purchased at 103.84 and interest the \$25,000 of 5 per cent. 20-40-year independent school district bonds.

Eldon, Mo.—Bids will be received until noon June 20 for \$6000 of 4 per cent. 5-20-year bonds of Eldon school district. W. H. Moss is secretary Board of Education.

Elyton, P. O. Birmingham, Ala.—Bids will be received until noon July 15 by Frank W. Smith, Mayor, for \$40,000 of 5 per cent. sewer bonds.

Fairview, Okla.—An election is to be held to vote on electric-light and water-system bonds.

Forrest City, Ark.—It is reported that the \$10,000 of 6 per cent. bonds of school district No. 7 were purchased by local parties.

Frederick, Md.—The election to vote on \$35,000 of funding floating debt, \$45,000 of water and \$20,000 of street-improvement bonds is to be held July 8.

Fredericksburg, Va.—Reports state that \$15,000 of 4 per cent. 10-30-year school bonds are to be placed on the market immediately.

Greenville, S. C.—Reports state that an election will probably be held to vote on \$200,000 of improvement bonds.

Gueydan, La.—H. T. Holtz & Co. of Chicago were the purchasers of the \$25,000 of 5 per cent. Gueydan school district building bonds.

Jackson, Miss.—Bids will be received until 2.30 P. M. July 7 by A. P. Lusk, City Clerk, for \$196,000 of 5 per cent. 20-year water and sewer bonds.

Keyser, W. Va.—The First National Bank of Keyser has been awarded at 103 the \$15,000 of 5 per cent. paving bonds.

Kosciusko, Miss.—W. B. Pottz of Kosciusko has purchased the \$8000 of 5 per cent. 20-year bonds.

Latonis, Ky.—Reports state that \$8700 of 6 per cent. 5-10-year street-improvement bonds were purchased at par and interest by Daniel Trapp.

Lexington, Va.—The city has voted \$20,000 of high-school building bonds.

Lexington, N. C.—Bids will be received by the City Treasurer until 4 P. M. August 1 for \$20,000 of 5 per cent. 20-40-year improvement bonds.

Lindsay, Okla.—Reports state that \$25,000 of water-works bonds were recently sold.

Marlin, Texas.—On July 8 an election is to be held in Falls county to vote on \$50,000 of bridge bonds.

McAlester, Okla.—It is reported that \$75,000 of 5 per cent. funding bonds have been purchased at par by H. C. Speer & Sons Company.

McKinney, Texas.—The \$8000 of water and \$8000 of electric-light 5 per cent. 15-40-year bonds recently approved and registered have been purchased by the State school fund.

Milltown, Ga.—It is reported that \$2000 of water-works bonds are to be issued.

Montgomery, Ala.—It is proposed to hold an election, it is reported, to vote on \$100,000 of school, \$25,000 of water-works, \$25,000 sewerage and \$10,000 of warehouse and wharf bonds.

Nicholls, Ga.—Bids will be received until 10 A. M. July 1 by L. C. Barnes, Mayor, for \$10,000 of 5 per cent. 30-year school bonds.

Paul's Valley, Okla.—John Nuveen & Co. of Chicago has been awarded \$45,000 of sewer and water-works extension bonds at 101.111.

Portsmouth, Va.—The Provident Savings & Trust Co. of Cincinnati has been awarded at par and accrued interest the \$170,000 of 4½ per cent. sewer, school and street bonds.

Quanah, Texas.—The State school fund has purchased at par and accrued interest \$8000 of 5 per cent. 10-40-year street-improvement bonds.

Richmond, Va.—The election held in Brookland school district to vote on \$40,000 of school bonds failed to carry.

Rising Star, Texas.—It is reported that bonds for water-works and light plant were recently voted.

Rockville, Md.—An election is to be held June 17 to vote on \$20,000 of 4 per cent. 1-20-year Montgomery county road construction bonds.

Rocky Mount, N. C.—Weil, Roth & Co. of Cincinnati have purchased \$135,000 of 5 per cent. 40-year water, light and street bonds.

Russellville, Ky.—Arrangements are reported being made to sell \$12,500 of 5 per cent. 20-year building bonds of Russellville graded common school district.

Russellville, Ala.—The city recently voted bonds for water-works and electric lights.

Sallisaw, Okla.—An issue of water-works bonds was recently voted.

Seguin, Texas.—An issue of \$6000 of 4 per cent. 5-40-year City Hall bonds has been approved by the Attorney-General.

Shawnee, Okla.—An election is to be held in July to vote on \$100,000 of convention hall bonds.

Stanton, Texas.—The State school fund has been awarded \$40,000 of 5 per cent. 20-40-year Martin county courthouse and jail construction bonds.

Stephenville, Texas.—An election is to be held July 14 to vote on \$25,000 of 5 per cent. 20-40-year bonds as follows: Sewer system, \$12,000; street improvement, \$5500; City Hall, \$7500. N. C. Baldwin is Mayor.

Stillwater, Okla.—MacDonald, McCoy & Co. of Chicago have been awarded \$10,000 of 5 per cent. 20-year school district building bonds.

Stillwater, Okla.—A. J. McMahan of Oklahoma City has purchased at par \$7000 of electric-light, \$33,000 water and \$27,000 of sewer bonds.

St. Joseph, Mo.—Bids will be received until 2 P. M. June 29 by H. H. Smith, secretary Board of Education, for \$250,000 of 4 per cent. 20-year building bonds.

St. Louis, Mo.—The \$5,500,000 of 4 per cent. 20-year improvement bonds have been awarded as follows: Franklin Bank of St. Louis, \$2,500,000 at 101.2 to 101.981; St. Louis Union Trust Co., \$1,000,000 at 101.4 to 102.8; Mercantile Trust Co. of St. Louis, \$1,000,000 at

101.030; Commonwealth Trust Co. of St. Louis, \$400,000 at 101.261 to 102.010; Wernse & Dieckman of St. Louis, \$250,000 at 101.145 to 101.279; L. H. Lionberger of St. Louis, \$200,000 at 101.270; D. A. Bowman of St. Louis, \$100,000 at 101.4605; the Noel-Young Bond & Stock Co. of St. Louis, \$50,000 at 101.751.

St. Petersburg, Fla.—On July 28 an election is to be held to vote on \$12,000 of 6 per cent. 30-year water-works and street-crossing bonds.

Suffolk, Va.—Bids will be received until noon July 1 for \$25,000 of 4½ per cent. century redemption bonds. W. B. Ferguson is chairman finance committee.

Tulsa, Okla.—P. D. C. Ball of St. Louis has purchased at \$5000 premium the \$250,000 of water-works improvement bonds.

Walter, Okla.—The city has voted \$25,000 of school bonds. It is stated that another election will soon be held to vote on bonds for street improvements.

Wewoka, Okla.—The question of issuing \$30,000 of school district bonds is reported under consideration.

Wheeling, W. Va.—Bids will be received on July 14 between 9 A. M. and 3 P. M. for \$695,000 of 4 per cent. improvement bonds. Address the Mayor.

Yazoo City, Miss.—A. J. Onkes & Co. have been awarded the \$15,000 of 5 per cent. school bonds.

At Ruston, La., bids are being received for \$32,500 of 5 per cent. water and light bonds. *Further particulars will be found in the advertising columns.*

At Meadville, Miss., bids will be received until noon July 6 for \$35,000 of 5 per cent. Franklin county bridge bonds. *Further particulars will be found in the advertising columns.*

At Franklin, Ky., bids will be received until 11 A. M. July 7 for \$18,000 of 5 per cent. 30-year bonds of Franklin graded common school district. *Further particulars will be found in the advertising columns.*

### Financial Notes.

Notice is given that on July 1 Wheeling, W. Va., will redeem \$1500 of bonds.

The First National Bank of Covington, Ga., is reported to be doing business in its new building.

The Virginia-Carolina Chemical Co. has declared a quarterly dividend of 2 per cent. on its preferred stock, payable July 15. S. W. Travers is treasurer, Richmond, Va.

An official announcement says that Geo. N. Hartmann has been elected secretary of the Metropolitan Trust Co. of New York to succeed Jacob C. Klinck, who has become first vice-president of the Williamsburgh Trust Co.

The MANUFACTURERS' RECORD is informed that the Granville Real Estate & Trust Co. of Oxford, N. C., proposes to add a general insurance department to its business. A. H. Powell is president and J. A. Niles, secretary and treasurer.

Albert Kleybolte & Co., 400 Walnut street, Cincinnati, are offering for sale some large lots of bonds, among them those of a Southern municipality, in denomination of \$100, the price being at such a figure that the interest will average 4½ per cent.

### A Waterway Wedding Trip—Newly-Married Couples Take the D. & B. Daily Line Steamers Across Lake Erie.

These are the days of the June brides, and many bridal couples enjoy the delightful lake ride between Detroit and Buffalo. A trip on the palatial steamers Eastern States and Western States fills all requirements, furnishing romance and seclusion at reasonable figures. Staterooms and parlors reserved in advance. Send two-cent stamp for illustrated booklet. Address Detroit & Buffalo Steamboat Co., 5 Wayne street, Detroit, Mich. †

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